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ORIGINAL LECTURES.

CLINICAL LECTURE

ON LACHRYMAL AFFECTIONS.

Delivered before the Class of the New York Eye and Ear Infirmary,

BY WILLIAM F. MITTENDORF, M.D.

GENTLEMEN,—You will have noticed that within the last few weeks we have had an unusually large number of lachrymal cases to deal with. Lachrymal troubles are much more frequent in regions where there is much catarrhal inflammation of the mucous membrane of the nose. The lining membrane of the lachrymal apparatus being continuous with that of the nose and the eye, inflammatory conditions of either of them are apt to affect also the lachrymal passage.

The first patient whom we had here to-day, a young man enjoying very good health, has had a slight catarrhal affection (post-nasal catarrh) for a long time, which had not given him much trouble, but last year, after exposure, it became a little worse, and he noticed that the eye began to be watery. This continued for one year before he found it necessary or made up his mind to consult us about it. In this case a subacute catarrh extended from the nose to the lachrymal apparatus.

The second patient whom we saw to-day is a young girl, who, as you noticed by the odor, is suffering from *ozzæna* to a slight extent; secondarily, the catarrhal process went up to the lachrymal passage. She tells us that this trouble began about a year ago, but on going to Europe the catarrhal trouble disappeared, and her eye ceased to be watery. Upon her return to this country the catarrhal trouble became more marked, and the lachrymation of the right eye was very disturbing.

This watery condition of the eye has been called *epiphora*, and depends upon the partial or complete closure of the lachrymal passages. In the cases which we have seen to-day we could trace the disease from the nose to the lachrymal apparatus.

The third patient was an elderly gentleman, who has had a chronic catarrhal affection of the conjunctiva for some time, complaining that his eye has been very

watery during the last five or six months. In his case we were not able to squeeze any fluid from the lachrymal sac, but upon careful examination we found that the lower canaliculus had become closed. His *epiphora* depended, therefore, not upon the nasal part of the lachrymal duct, but upon the palpebral portion of it. The chronic inflammation of the conjunctiva had extended to the canaliculi, and these, being very narrow, had become closed up. It is not always the case, in lachrymal disease depending upon conjunctival affections, that the canaliculi are the seat of the trouble. The inflammation extends much more frequently from the conjunctiva as far down as the sac or the nasal duct. You will always notice that children suffering from *phlyctenular conjunctivitis* are afflicted with more or less inflammation of the Schneiderian membrane. In these cases the acrid tears passing through the lachrymal apparatus cause inflammation of the Schneiderian membrane of the nose, and it may lead sooner or later to affections or closure of the lachrymal apparatus.

There is one remedy that has of late produced severe inflammations of the lachrymal sac, and that is *jequirity*. Jequirity has been recommended for the treatment of *pannus*, and in a great many cases it has been used for granular lids where the cornea was perfectly clear, and where it should not have been used for that very reason. In a number of cases it has produced inflammation of the eye, which extended to the lachrymal apparatus and produced an acute inflammation of the lachrymal sac. I have seen one of these cases, and a number of them have been reported in Europe.

These lachrymal affections may be divided, for convenience, into simple stricture from obstructions of the lachrymal passage, into chronic inflammation of the lachrymal sac, and into acute inflammation of the sac.

Strictures may occur at any portion of the lachrymal duct, but they occur much more frequently at that portion where the mucous membrane is thickest, and where it forms, as it were, a natural valve,—namely, at the junction of the lachrymal sac and the lachrymal duct. If we look upon the lachrymal apparatus, we find that the canaliculi from the upper and from the lower lid open into the sac by one common duct.

This common duct is very short, and for that reason it is very seldom obstructed. But as we go farther down we find that the sac becomes prolonged into the nasal duct, and the mucous membrane lining this portion is very loosely attached, and forms folds which lie almost in apposition with the opposite side of the canal. An inflammatory action in this portion of the canal is apt, therefore, by swelling the mucous membrane, to cause obstruction. If the catarrhal trouble be relieved, this obstruction will disappear again. In almost every severe attack of acute coryza the mucous membrane of this portion of the canal swells, partly closing it, and the eye becomes watery. After the acute attack passes off the tears find their usual channel again. But in more chronic inflammations, the mucous membrane on the opposite sides of the duct being in close apposition for a length of time, adhesions are apt to form, and then we have to deal with a slight stricture, and this is known, as it affects the mucous membrane alone, as a mucous stricture. These have the best prognosis for treatment. They are speedily relieved. But if the process is accompanied with loss of epithelium, and dense cicatrices form which implicate the fibrous portion of the duct, a dense, hard stricture develops which is known as a fibrous stricture. This does not offer so favorable a prognosis.

The third form is the bony stricture. It is sometimes found in scrofulous children, or follows tertiary manifestations of syphilis of this portion of bone or periosteum. You will remember the case you saw here yesterday, in which an elderly man suffered from an affection of this kind. He informed us that a doctor had once opened the cheek and tried to force the probe from this opening through the nasal duct. But he failed, and the man suffered for twenty or more years from lachrymation. Recently this became aggravated by a severe cold, and you will remember that in opening the lachrymal passage we had great difficulty in getting into the nasal duct, or bony portion of the canal, because the opening in this portion was obstructed. These bony strictures require a bold hand. You have sometimes to crush through the obstructing portion of bone, but you must always be careful to let your knife have the proper direction. It is only a short time since I saw a case in which a

surgeon, in trying to force his way through an obstructed canal of this kind, lost his way, and the knife passed through the junction of the hard and soft palate. Of course he did not relieve the patient, but caused her a great deal of suffering. In dealing with this kind of strictures we have to be also very careful as we use our lachrymal knife, because the knife is apt to break off and portions of it remain in the canal. If these portions are small you need not be alarmed about it. They become either encapsulated or dissolved by the action of the tear-fluid, pass off, and give the patient no trouble whatever. I have seen this accident occur to the most skilful operators, and if possible it is well not to alarm your patient, but leave it there and not worry about it. Frequently by probing afterwards you will be able to push the portion of steel down through the nasal duct, but even if you do not succeed in doing this there is no harm done.

These are the three different kinds of strictures. Now, we have another inflammation which affects principally the portion above the stricture. This chronic inflammation of the tear-sac has received the name of *dacryocystobleorrhœa*, a blennorrhœal inflammation of the lachrymal sac. In a stricture, the tears are not allowed to pass down to the nose; they are retained at the lachrymal sac. In this sac, if they are not pressed out, occasionally they will undergo degenerative changes; they become irritating, and set up an inflammation of the lining membrane of the sac. The increased secretion from the sac, consisting principally of mucus and also of pus, will accumulate and form a distinct tumor by distending the sac. In the beginning the patient may, by pressing upon this very hard, be able either to force the fluid down or upward into the conjunctival sac. But if the disease exists for any length of time it becomes impossible to press the fluid down, and the patient can only empty the sac by squeezing its contents into the conjunctiva. This disease, in itself a disagreeable affection,—because it fills the eyes with tears and putrefied matter,—becomes a source of great danger if an ulcerative process of the cornea is present. I think it was Hartmann who recently discovered three distinct varieties of micrococci in the discharge of this lachrymal sac which are not found in

its natural secretion. These coming in contact with an ulcerative surface of the cornea will poison it constantly, and thus lead not infrequently to complete destruction of the cornea. You are well aware also that this is frequently the source of loss of the eye after cataract-extractions. If the physician neglects, in operating for cataract, to examine the lachrymal passages, he may be surprised, on changing the bandages the first or second day after the operation, to find the eye filled with secretion from this sac, poisoning the wound and starting one of the most terrible affections of the eye,—namely, a purulent infiltration of the operation-wound, which in nearly all cases leads to loss of the eye. If the case be mild, the secretion is principally mucoid in its character, and by pressing upon the sac the thick, viscid mucus is expelled from it. This form is known as mucocele, and may at any time develop into a real blennorrhœa of the sac. It is singular how many months and years people will go on with a trouble of this kind without seeking aid, and it is only when an acute inflammation supervenes that they seek medical advice. A person afflicted with a trouble of this kind catches a slight cold ; the mucous membrane of the eye becomes inflamed ; the canaliculi are closed up in consequence of it, and we have now the condition entirely changed. The secretion of the lachrymal sac cannot be pressed out ; it accumulates ; it is so irritating to the cyst-wall itself that it produces inflammation of the sac, known as dacrocystitis, sets in. Here we have a considerable space of mucous membrane discharging its secretions into the sac, where the discharge cannot escape. The sac becomes very much distended, the surrounding tissues participating ; the eyelids become red and edematous ; in fact, the eye becomes closed, and the patient is justly alarmed. He looks upon this—and a great many practitioners will do the same—as an attack of erysipelas. I have seen that mistake made so frequently that I wish to call your attention especially to it. An inflammation of this kind is generally confined to one eye : it never extends over to the other side ; whereas erysipelas will spread from one side to the other. Another diagnostic feature is that you have had a watery eye for a number of months or years be-

fore the attack came on, a condition which you are not apt to have in erysipelas. You may have the same amount of fever, but the pain in this affection is much greater than that in erysipelas. The forehead may swell slightly, but it has not that characteristic inflammatory appearance which erysipelas has at its margin. The disease, if not interfered with now, is apt to result in the breaking down of the skin overlying this part of the sac. A lachrymal abscess will be the result. The purulent matter discharges through this opening. The inflammation of the canaliculi subsides, and tears begin to pass into the sac from the eye. But the stricture, which has been at the bottom of all this trouble lower down, is still there. Tear-fluid cannot pass ; it has to run through the opening in the cheek, and thus prevents its healing : a lachrymal fistula is the result.

We have another form of lachrymal fistulae, and that is fistula of the lachrymal gland. This, of course, is found at the outer angle of the eye, and is generally in the form of a small, hair-like opening. This affection is extremely rare. A fistula of the lachrymal sac, however, is not rare.

If the trouble is not attended to now, a large slough, by extension of the fistulous opening, may be the result. We saw a young lady, only a few days ago, with such an opening large enough to admit the first joint of the little finger.

Such are the different forms of lachrymal trouble, gentlemen. Now let me say a few words with regard to treatment. No matter what the lachrymal trouble is, in a great majority of cases the stricture of the nasal portion has been the starting-point, and the main part of our treatment must be to relieve the stricture first. No matter whether you have a simple stricture or whether you have a lachrymal abscess or whether you have a fistulous opening to deal with, do away with the stricture, and the after-treatment will be comparatively easy. We all know Bowman's probes. These were invented by Mr. Bowman, of England, to dilate these strictures. Weber invented a number of knives to slit either the canaliculus or to divide a stricture of the lachrymal duct. But it is especially to Stilling, of Strassburg, that we owe the present mode of treatment, free division of the stricture by means of a broader knife, of which I will show you here a few modifications. Of these, we have

here Agnew's knife, with a flexible shank ; and here is Dr. Noyes's knife, which is more complicated, and is not so much used as the other one. Here is Weber's curved knife, for slitting up the canaliculus ; and here is his straight knife, for dividing the stricture. All these knives have a rounded, oblique-pointed end, which enables you to get into the canaliculus. Sometimes these points are very thick, and you will find it difficult to enter the canaliculus, especially if it is slightly contracted. You will remember the young lady whom we saw here to-day suffering from *ozæna*, and that in her case the canaliculus was contracted considerably. In order to get into the constricted canaliculus a dilator has been devised by Dr. Peck ; but I think a pin will act fully as well as any other instrument that I have ever seen. With this you want to enter the canaliculus, and stretch it a little, when your knife will readily enter it and you can proceed with the operation. There is one point which I wish to emphasize,—namely, in dividing the canaliculus you should be careful that your cut lies in the conjunctival portion of the canaliculus : you should give your knife a direction inward and upward. If you neglect to do this, and make your incision on the free edge of the lid, the tears cannot get into the canaliculus readily, and your operation will not be a success. Besides, it produces more or less of a deformity if the incision be not made within the conjunctival part of it. After getting into the sac, you should raise your knife ; but do not push it down until you have passed a little beyond the median or perpendicular line. If you neglect to do this, and begin to push down your knife before you reach this point, you will be apt to come against the nasal bone and cause unnecessary pain. Your direction is downward, outward, and backward, and in order to get the outward direction you must pass your knife beyond the perpendicular line.

After division of the stricture, probes will have to be used in order to keep the stricture open ; and it is here that we are indebted to American surgery for the most recent and the most important improvement in the treatment of these affections. It was Dr. Theobald, of Baltimore, who first called attention to the fact that the bony portion of the canal had a much greater diameter than that of the sounds

that we were in the habit of using, and he recommended the use of much larger sounds. Formerly we had been in the habit of beginning with No. 1 of Bowman's probes, a very fine probe indeed, and it must necessarily allow the stricture to contract considerably again before the larger probes could be reached. We are now using larger probes immediately after division. I find that in this way mild cases, which had formerly taken perhaps months for complete cure, will be perfectly cured within a week or two. You should pass a large probe, No. 9 or No. 10 of Theobald's perhaps, immediately after the operation, and if possible the next day after the operation ; a third time perhaps on the fifth day, and you may have to pass it once more on the eighth or ninth day. That will in the majority of cases leave your patient entirely free from trouble.

Where we have to deal with fibrous strictures, which have a much greater tendency to contract again, and when the bone is denuded of its lining membrane, the trouble is a little more obstinate, and it may be that several weeks or even months will be required in order to cure the trouble.

Fistulous openings, if they exist, will, after passing these large probes, heal of themselves. If larger portions of the integument are gone, it may be well to touch the margins of these ulcerative surfaces with a small piece of caustic, or with the actual cautery, thus stimulating more rapid closure of the ulcer.

Another remedy which we have at our disposal, namely, syringing out the sac with boric acid twenty grains to one ounce of water, or a solution of bichloride of mercury one to two thousand, or a solution of the cyanide of mercury one grain to five or ten thousand parts of water, will benefit the patient very much indeed. The original syringe, as proposed by Anel, consisted of a syringe made of gold or silver ; but I find that this is very hard to introduce, and the quantity of fluid which can be used with it is very small. I find that a rubber syringe with a bulb which can be attached to a soft-rubber tubing, which is again connected with a perforated probe, will throw a larger quantity of water through it and allow of more perfect cleaning and washing out of the sac than the old method.

We must not forget that in these cases

chronic inflammation of the eye or inflammation of the Schneiderian membrane of the nose coexists, and that in order to give our patient perfect relief the nose as well as the conjunctiva requires special treatment. I have used in these cases a solution of ten grains of alum, two ounces of camphor-water, and half an ounce of cherry-laurel water for the eye. A few drops of this preparation are to be instilled into the conjunctival sac, and best after the patient has cleaned out the sac by pressing upon it and blowing his nose. He is now directed, after putting in the fluid, to blow the nose, and thus draw the fluid from the eye into the nose, medicating in this way the entire lachrymal canal. After this has been done, a few drops of the liquid are to be taken in the hand and snuffed into the nose, or thrown into the nose by means of a spray. In this way the entire lachrymal duct is treated, and the relief is very prompt and lasting.

In very obstinate cases of stricture, especially of the bony variety, it may become necessary to destroy the sac. This destruction of the sac used to be carried on by opening the sac and burning it with nitric acid. Of course this has to be done under an anæsthetic. I think a much nicer, more effective way to do it is by means of the electro-cautery. But, gentlemen, I hope you will never have occasion to do this. It is not satisfactory; at least more or less of a scar with a sunken-in appearance in the region of the sac will remain, and I think you ought always to make faithful, persevering efforts to get through the duct.

[The following additional remarks were made in reply to questions by the class.]

With regard to the treatment of small infants suffering with these affections, we must not forget that some children are born with obstruction to the lachrymal canal. In these cases it is apt to occur on both sides. It has been my custom to try ameliorative measures, like cleansing the eye carefully with boric acid, and also syringing the nasal cavity with a concentrated solution of boric acid; that is, twenty grains to the ounce of water. As soon as the child is a little older, say nine months or a year old, I have gone through the required operation already mentioned. I find that in these children, as a rule, a simple division of the stricture is sufficient.

Only in exceptional cases does it become necessary to introduce a probe. Of course you have to use an anæsthetic, and the less frequently you have to resort to these measures the better.

You may have, even in small children, a fistulous opening of the kind mentioned which will call for immediate relief, and the slitting of the stricture and the introduction of sounds should be faithfully attended to. For that purpose you should take a small straight Weber's knife.

The use of styles, which was much in vogue formerly, I have entirely discarded. I have never found it necessary so far to make use of them. I think they are apt to do more harm than good. But I have used a peculiar form of style in patients with chronic affection of the tear-passage who could not remain under my care, immediately after division of the stricture. In these cases I have used a piece of lead wire, passing the lead wire through the divided stricture and cutting it off near the opening in the canaliculus, bending it a little so that it will remain in place. The patient can move it a little if necessary, and it can remain in the eye from one to two weeks. In fact, if no discharge from the eye takes place, showing that the inflammatory condition of the sac is relieved, the patient may take the wire out himself. But I do not like even to use this form of style, for any form of style is apt to slip down into the nasal duct, and by pressing upon the nose cause a great deal of inconvenience. In some cases it has been necessary to cut down upon them in order to remove them. I have also employed in these cases short hard-rubber probes with a broad handle, that prevents their sliding into the sac, but they are more prominent than lead wire.

A bony stricture may take place at any point of the bony canal; it may be the result of a traumatism, and this traumatism may occur at any portion of the canal. But the stricture is most apt to develop at the upper portion. If it take place lower down it may become necessary to chisel through the obstruction; and I have thought of making a drill with a little gimlet, one which can be run with machinery like Dr. Goodwillie's drill for making holes into bones. I had intended to make some such instrument for use in the case of the patient operated upon twenty years ago by an eminent oculist in

this city, who failed to get through the obstruction; but before resorting to such a plan I introduced a sound, and by making some pressure passed through the stricture, and the patient experienced complete relief from his trouble.

ORIGINAL COMMUNICATIONS.

REPORT ON OTOTOLOGY.

BY CHARLES H. BURNETT, M.D.,
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DISEASE OF THE AURICULAR CARTILAGES.

SCHWABACH (*Deutsche Med. Wochenschrift*, No. 25, 1885), in view of the small number of reported cases (three) of ossification of the auricular cartilage, gives an account of such a case in a man, 59 years old, whom he has had under observation. The ossification, which in this instance dated from youth, comprises the major part of both auricles. The upper and posterior parts of the helix, the scaphoid fossa of the anthelix, with both their crura, and the fossa triangularis, are entirely ossified. The concha proper feels only a little denser than usual, while the tragus and antitragus are free from ossification. Mere inspection does not reveal any change in the auricle, but any bending of the auricle upon itself is impossible.

His second communication concerns a case of spontaneous, non-traumatic perichondritis auriculae in a woman 28 years old. As in previously-observed cases, which are, however, not numerous, the affection proved very chronic, notwithstanding deep incisions, and in the course of three months terminated with striking contractions and disfigurement of the auricle. It is worthy of note that both the resulting deformity and the protracted course of this disease have been observed to follow when the perichondritis has developed multiple abscesses, while those cases wherein only a single abscess formed, either small or large, were quickly healed without contraction and disfigurement of the auricle.

INFLAMMATION OF THE ATTIC OF THE TYMPANUM.

Dr. Samuel Sexton, at the last meeting of the American Otological Society, July 14, 1885, presented a paper on the above-named, highly important subject. The attic of the tympanum is described as that

part of the drum-cavity above the atrium, the larger and lower cavity. The attic is smaller than the atrium, and communicates posteriorly with the antrum mastoideum and the mastoid cells. It communicates also with the under part of the tympanic cavity, or the atrium, "by an elliptical aperture formed internally by the ridge of the facial canal, and externally by the tympanic margin of the auditory plate." The roof of this pyramidal space is the tegmen tympani, the latter separating it from the cranial cavity. Its inner boundary is a convex prominence in the bone produced by the contiguous portions of the external semicircular and facial canals. Its outer boundary is the wide, crescentic tympanic edge of the auditory plate of the squama. In this upper division of the tympanic cavity lie the neck and head of the malleus and the body and short process of the incus. It must be borne in mind, however, that this cavity is not fully defined, especially in its outer boundaries, in early life, for not until the fifth or sixth year have the squama and the tympanic ring so far united as to form the osseous canal, the upper and tympanic edge of which forms the so-called scute, or auditory plate, the outer boundary of the attic.

Inflammations of this part of the tympanic cavity have not received the attention they deserve, because of the hidden and hence often-overlooked position of the attic. Therefore Dr. Sexton has devoted an elaborate paper to the description of the anatomy of this part, and the discussion of its diseases and their treatment. The latter are divided into chronic and acute forms of inflammation,—the former having already been described by others, the latter not so much so. Dr. Sexton devotes most of his paper to a consideration of the acute form. This may originate in catarrh of the head, due to exposure or the exanthemata, or from the entrance of water through the Eustachian tube in bathing or from the nasal douche. Very often only the attic is affected from these causes, because, as it is claimed, the tympanic orifice of the Eustachian tube opening into the attic, as well as the lower part of the tympanic cavity, fluids impelled with great momentum through and up the tube "would follow the upper sweep of the tympanic eminence rather than gravitate downward." It is also held by the writer of the paper that the presence of irritating fluids is

better borne by the atrium than by the attic. Inflammation of the attic may be consecutive to inflammation of the atrium, but both may be affected simultaneously. Inflammation of the attic alone is more serious than inflammation of the atrium alone, because of the blocking up of the outlets of the former, and the consequent inability of the products of inflammation to escape. More or less pain usually ushers in inflammation of the attic, the membrana flaccida is red, and the upper and inner end of the wall of the auditory canal is also congested. This may also include the upper part of the handle of the malleus.

At this point a retrocession or resolution of the inflammation may ensue, but frequently, Dr. Sexton states, an effusion of serum or blood extends outwardly and elevates the membrana flaccida and the adjacent skin of the external auditory canal. Sometimes this bulging is sufficient to form a sac, which conceals the membrana, and in some cases extends to the outer meatus as a purplish tumor. In some cases drainage continues through a small nipple-like perforation of the membrana flaccida, resembling a polypus, or a true polypus may form at this point. Sometimes periostitis of neighboring parts is an attendant of this disease. Inflammation may also extend downward into the atrium. As long as the membrana and the atrium escape there is not much deafness, though there may be autophonia. Pain is not a true index of the gravity of the disease: it is not apt to be as severe as in periostitis externa. We cannot admit, however, "that purulent matter escaping from the attic through the membrana flaccida, or from a mastoid sinus in cases of ozana, is characteristic of this disease."

Treatment.—Dr. Sexton relies upon remedies reputed to control inflammatory and purulent action in all cases,—viz., upon minute doses of mercury until purulence threatens, when calx sulphurata is indicated. Pain and vascular excitement may be controlled by aconite, belladonna, pulsatilla, and gelsemium. In certain cases relief may be obtained by removing secretions from the attic, through the Eustachian tube, by a mode of aspiration, as successfully done already by the writer of the paper.* When purulent matter forms after

Wilde's incision, drainage can best be maintained by the employment of one or more thicknesses of catgut, which can be folded easily and introduced into the wound, and is not irritating. When a sinus enters the antrum or mastoid cells, this dressing not only permits free drainage, but if the number of folds be increased the opening thereby may be enlarged to almost any desired extent. This seems to aid in the disappearance of minute sequestra. The catgut should be changed as often as once or twice daily. The writer acknowledges his indebtedness for this suggestion for the surgical use of catgut, to Dr. Thomas M. Markoe, of New York.

If as a result of the tympanic inflammation pachymeningitis or cerebral abscess ensue, trephining can be regarded only as a means of drainage, and not as having influence upon the course of the cerebral disease. In the opinion of Dr. Sexton, the surgeon may often avail himself of the tendency manifested by the pent-up products of inflammation to escape through the posterior wall of the auditory canal "by perforating the posterior edge of the thin auditory plate just above where it joins the tympanic plate."

In the local treatment of chronic cases salicylic acid has, in the writer's opinion, "been attended with the best results, bringing about a dry desquamative condition, which is often the best issue hoped for."

AURAL DISEASES IN DIABETES MELLITUS.

Schwabach, of Berlin (*Deutsche Med. Wochenschrift*, December 24, 1885), after communicating an account of an acute otitis media which he observed in a diabetic patient in 1876, and which resembled the cases of Raynaud and Kirchner recently reported, makes the following interesting concluding remarks on the etiological connection between diabetes mellitus and some sudden and violent forms of aural inflammation:

"It is worthy of note that in all these cases of so-called or supposed diabetic otitis media the attacks are sudden and without any apparent external cause. It is not always possible, in the ordinary form of otitis, to assign a reason for the occurrence of the aural inflammation, especially in those not used to observing processes concerning themselves, and who therefore easily overlook any preceding irritation.

* London Lancet, October 28, 1884.

The usually assigned cause is exposure to cold and the occurrence of *coryza*."

Of the four cases of diabetic otitis alluded to by Schwabach, three at least occurred in individuals already carefully housed and watched in hospitals, where they were for treatment of diabetes. In all of them the otitis occurred without any external inducing cause, very suddenly, and in Schwabach's case the pain came on suddenly, according to the statements of the patient's friends and physician, without any previous exciting cause.

It is also very striking that in all the cases observed, in spite of appropriate treatment, the inflammatory process passed to the mastoid portion with such rapidity and violence that it there produced extensive destruction,—altogether different from the course of inflammation of the middle ear, except when some constitutional disorder underlies it. In Schwabach's case the carious destruction of the mastoid process was extensive, when the short duration of the affection is considered. In his case an advance of the disease was checked by perforation of the cortex of the mastoid. In these cases Raynaud and Ladréit de la Charrière hold that the osteitis mastoidea is the primary disease, and that the tympanic cavity is secondarily affected. The osteitis is referred to the dyscrasia induced by the diabetes, in the course of which inflammation of bones is not unusual. The osteitis, like anthrax and diffuse phlegmon, must be classed among those inflammatory processes with a disposition to necrosis and gangrene which often occur in diabetes mellitus, and which are attributable to the "inflammatory gangrenous diathesis" of Marchal de Calvi.

As a rule, operations on the mastoid, in cases of diabetic otitis media and osteitis mastoidea, are not to be undertaken, except as a very last resort to relieve pain and save life. The prognosis in such operations in these cases is always grave. If undertaken at all in diabetic subjects, they must be performed at the earliest indications, in order to prevent the extensive osseous destruction so likely to ensue rapidly in those suffering from this dyscrasia.

THREE CASES OF SEVERE DISEASE OF THE LABYRINTH FROM SCARLATINOUS DIPHTHERIA.

The account of these cases, as given by Dr. Oscar Wolf, of Frankfort-on-the-Main, presents great interest, because it is

uncommon for the aural disease in such cases to be watched from the outset by an experienced aurist.

The first case was one of "severe scarlet fever complicated by diphtheria of the nasal passages and post-nasal pharynx." There was an extension of the diphtheritic process to the middle ear by the Eustachian tubes, and complete loss of hearing.

The patient was a boy 6½ years old. Dr. Wolf was called in consultation on account of pain in the right ear, complained of by the patient on the seventh day of the fever. The diphtheritic membrane had been observed in the nasal passages and the post-nasal pharynx for two days. The cervical glands were greatly swollen, and the nose was discharging offensive purulent fluid. The scarlatinal eruption was then present, confluent on neck and chest, with dark-red petechiæ. Fever high; pulse 116-120; temperature between 40° and 41° C.; great prostration.

The hearing was greatly reduced. On the left side the hearing was still nearly normal, and the membrana showed no abnormal symptom as yet. It was advised to endeavor to check the further progress of the aural disease by a free incision through the right membrana, which was done, with a view to lessening the evil results of entire destruction of this organ by sloughing of the whole, which in such cases is most likely to occur. It appears that Politzer's inflation was not sufficient to force mucus from the tympanic cavity after the incision, and therefore Dr. Wolf employed the catheter with which to force out mucus from the drum-cavity.

Subsequent to the operation on the eardrum, liquor ferri chloridi was given internally, and "a weak solution was used to syringe out the ear and nasal cavities." A dilute solution of carbolic acid was also used to wash the ear and nose, and boric acid powder was blown into the external auditory canal.

The next day after the operation on the right ear, the left began to show signs of inflammation. The membrana appeared softened and macerated, as the other had done, and the hearing from the outset was so much reduced that a loud voice was not heard close to the ear. The child became very restless, the fever was high, and by morning the temperature was 41.2° C.; pulse 130 and small. Paracentesis of the left membrana was also performed, and air

forced into the tympanic cavity by the catheter, the fluid thus forced from the cavity being thin, serous, and offensive. The parts in the auditory canal were soft, and the mucous membrane of the tympanic cavity was transformed into a spongy, purulent mass.

Three days from the beginning of the ear-disease the patient became entirely deaf, and complained of subjective sounds in the ear. The treatment consisted in instillations of solutions of boric acid, and weak solutions of carbolic acid and of sesquichloride of iron. The ear was inflated by the catheter and the passages cleansed twice daily with disinfectants. Gradually the mucous membrane of the tympanic cavities began to clear up. Granulations were formed, and some of them were scraped off. In the fourth week the discharge from the ears had almost ceased. It was now discovered that the lower half of the right membrana had been destroyed, and three-fourths of the left membrana. The ossicula were *in situ*, but the patient was entirely deaf, and has so remained. After desquamation had ended, in the sixth week, the child was permitted to leave his bed. The gait was unsteady, and with this there was a tendency to fall forward, which persisted for some weeks. But at the end of twelve weeks these symptoms had disappeared, and there was no defect in nose or pharynx. It was concluded by Dr. Wolf and Professor Moos, who had been called in consultation, that the labyrinth had become affected, and that, therefore, pilocarpin injections should be tried; but the father of the patient objected, and the child entered an institution for deaf-mutes.

The second case was also one of severe scarlet fever, with diphtheria of the post-nasal pharynx and extension of the diphtheritic process, *per tubam*, to both tympanic cavities. Recovery of hearing ensued after injections of pilocarpin. The patient was a little boy, 7 years old, of healthy parentage. The temperature ranged between 40° and 41.5° C. for eight days. Eruption confluent at many places and dark red. Diphtheritic membrane on pharynx, and cervical glands swollen.

The child had been attacked on December 20. On January 4, Dr. Wolf saw the case in consultation for the first time. The diphtheritis was then receding, the nares were free, and the child's strength

improving. He had been deaf, however, for eight days. There had not been much pain in the ears, but there had been annoying tinnitus. For three days there had been a thin, offensive discharge from the ears.

At this date (January 4), on the right side the lower half of the membrana was seen to have been destroyed. The handle of the malleus was denuded of periosteum and projected into the perforation. The mucous membrane of the tympanic cavity was brownish-red in color, swollen, and covered in places with a yellowish membrane.

The left ear presented similar appearances; but there was not so much destruction of the membrana tympani, and its manubrium mallei was fully covered with periosteum. The watch could be heard from the temple and in contact with the auricle. The tuning-forks C' and A' could not be heard either from the mesocranum or from the external meatus. Loud voice could not be heard at all, and the parents of the child communicated with it by writing.

Inflation of the tympana did not improve the hearing. From this fact and the others just narrated, it was concluded that the deafness was due to labyrinth-disease, and it was decided to resort to injections of pilocarpin.

The treatment was begun by injecting 0.005 grammie under the skin of the neck twice daily, increasing the dose by 0.001 grammie every two days until the maximum, 0.01 grammie, was reached. The physiological effect of the pilocarpin was complete, as profuse sweating and copious salivation followed each injection. It was also observed that an increased secretion from the tympanic cavities accompanied the sweating and salivation. In six days sound began to be heard. By the 14th of January,—i.e., ten days from the beginning of the pilocarpin-treatment,—the child complained of aural annoyance at the singing of a canary. On the next day single words were apparently understood by the patient; he began to play, his appetite increased, and his cheeks gained color. From January 20,—i.e., on the sixteenth day of this treatment,—a 0.01 grammie injection of pilocarpin was made every two days only. By this time thirty injections had been made, and the hearing in the right ear was so much improved

that the watch could be heard in contact, and conversation could be understood at two metres. Subjective sounds were now very infrequent and slight; but the hearing in the left ear was very dull.

At the beginning of the treatment vertigo and trembling were intense; but after six injections of pilocarpin these symptoms greatly abated. From January 30 to February 17 nine injections were made; then all injections were discontinued. The child ultimately resumed his school-tasks with children of good hearing, and proceeded without inconvenience, the hearing, however, not being entirely normal.

The third case we find to have been one of scarlatinous diphtheria, with panotitis of both sides, in a little girl 4 years old. She was taken ill December 15, with slight angina; on the second day there was distinct scarlatinal eruption; on the fourth day the temperature rose to 103.3° - 104.3° F., and diphtheritic membrane appeared, advancing from the naso-pharynx to the arches of the palate. On the sixth day occurred the first aural symptom,—viz., impairment of hearing. On the seventh day both tympanic cavities were filled with whitish-yellow, partially-organized masses of diphtheritic exudation. The drum-membranes were entirely destroyed. The patient now passed through an attack of albuminuria, with anasarca and great prostration, besides general panotitis with mastoid symptoms on both sides. Upon testing the hearing on February 4, it was decided that considerable disturbance existed in the sound-perceiving apparatus, and it was therefore resolved to resume the use of pilocarpin, which had been tried once, but abandoned on account of the patient's weak condition. Forty-one pilocarpin injections were therefore made between February 8 and May 1. The first twenty-five were of a one-per-cent. solution, the last sixteen of a two-per-cent. solution. The increase in the strength of the solution was rendered necessary because diaphoresis could not be produced by the weaker solution as the strength of the patient increased. By the end of March the body-weight of the child was increased, notwithstanding the diaphoresis. At first the injections were made every day, then every other day, and, finally, twice a week. They were finally entirely abandoned when they regularly produced vomiting, as they did the last six times.

Remarks.—The first of these cases presented the most injurious results, for in little more than forty-eight hours there were total deafness, loss of subjective perception of sound, and alteration of the sound of the patient's own voice. In three months the uncertainty of gait had ceased, but the patient was hopelessly deaf.

In the second case the labyrinth was in the beginning profoundly involved; but an earlier subsidence of the diphtheritic process relieved the labyrinth, one-half of the membrana remained, and the mastoid processes were not involved, as in the third case. The improvement in the hearing accordingly followed sooner and to a more considerable degree, beginning with the reappearance of subjective perception of sounds.

In the third case there was a rapid destruction of the membrana tympani and of periosteum in various places, especially in the chain of ossicles and of both mastoid processes.

The prognosis in such cases as these is always difficult, because the full extent and nature of the lesion cannot be easily determined early in the disease. Dr. Wolf suggests that in the third case there may have occurred a loosening of the stapes-articulation, and therefore ordinary movement in walking might have produced enough oscillation in this bone to evoke vertigo. Finally, the organization of cicatricial tissue would fix the stapes and put an end to its ready movements in walking and the consequent vertigo. The vertigo in such cases, therefore, need not always be referred to labyrinth-lesions.

These cases demonstrate the inability of all the therapeutic means known to us, to check the injurious effects of the diphtheritic exudation even in the first hours of the aural affection. Masses of partially-organized exudation appear in the tympanic cavity, even in the most delicate parts, and if instillations of ten-per-cent. alcoholic solutions of salicylic acid be used, they affect only the superficial parts of the exudation, and not the underlying mucous membrane. Furthermore, in its diseased condition, such applications might erode the membrane of the round window. It is well, therefore, in Wolf's opinion, to limit the local treatment of the ear to cleansing the tympanic cavity with disinfecting and non-corrosive applications. He is of the opinion that pilocarpin acts

by loosening the diphtheritic membrane in the tympanic cavity and by relieving the pressure in the labyrinth. But the tendency to weakness of the heart and somnolence induced by this drug renders it dangerous to the life of the patient if used in the height of the disease. Its use should therefore be resorted to with great caution, and with small doses at first, and only after careful examination of the general condition.

A CONFIRMED CASE OF OPIUM-
ADDICTION TREATED SUCCESS-
FULLY AT THE PATIENT'S
HOME; WITH REMARKS UPON
ITS TREATMENT, AND ESPE-
CIALL Y UPON THE VALUE OF
COCA IN OVERCOMING THE
OPIUM-HABIT.

BY WILLIAM F. WAUGH, M.D.,

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SOME recent articles in the medical journals, by their extravagant praise of the treatment of the opium-habit in private retreats, seem to question the probability of such cases being cured at their own homes.

Certainly, whenever it is possible, a residence in such a retreat, properly managed, is to be preferred. The advantages are many and obvious.

The very fact that the sufferer has determined to quit all other occupations and devote himself for the time being exclusively to an effort to free himself from his thrall-don puts him at once on a vantage-ground. How different is this from his position when he continues his usual vocations, encounters all his daily duties, cares, and worries, and pursues his course of treatment simply as an incidental matter, and not as the sole business of his life! At his home, too, he has this refuge of lies constantly in his mind, that if the trial prove too irksome he may postpone it to some time in the near future, when business is less urgent, the weather is less depressing, or for any other reason he will feel better able to bear the deprivation of his accustomed stimulant. In truth, that one has the resolution to break away from business and home to make one earnest effort at deliverance is in itself a good omen for his success. Pleasant surroundings, change of scene, different cookery, and new ac-

quaintances, all have their influence for good. To this we may add the fear of failure and the consequent disgrace in the eyes of other inmates, which to many persons is a most potent incentive to perseverance.

But, above all else, it is an unspeakable comfort to the miserable, nerve-broken wretch to feel that he has constantly by him a skilful and humane physician, who knows the nature of his sufferings and how best to relieve them, and when to allow him the magic drug when his pangs would be unbearable without it. No man in robust health can readily appreciate what such a trust is to these people. It is like the faith often displayed by consumptives, who "are not afraid to die, since they know that every means available in medical science is being used to prolong their lives and make them comfortable." But the private hospital method is open to two serious objections. Few men in active pursuits can leave their vocations for the requisite time, and fewer can afford to pay the incidental charges.

Great as are the advantages of the hospital method of treatment, it must not be inferred that patients who are unable to avail themselves of its aid are therefore incapable of being cured. In spite of the difficulties, many cases may be successfully treated at their own homes.

I may here state my utter disbelief in any heaven-sent specific, which in some occult manner works the cure by simply giving so many doses in any given time. I do not believe any such remedy has ever been or will ever be discovered. All the cures which have ever come under my observation have been brought about by a system of combined moral and medical treatment based on the general principles of medicine applied to the indications present in each individual case. Let me add here my conviction, which I endeavor most earnestly to inculcate in my teaching, that more true advances will be made in medical practice by exhaustive study of every detail in the management of a case than by groping after specifics. The same method has made in abdominal surgery the most brilliant successes of the modern surgeon.

The patient whose case forms the basis of this paper came to me early in October. He is a very intelligent man, as many opium-habitués are, and gave me great

assistance throughout his treatment by his quick apprehension of the object sought by each remedial measure proposed, and by faithfully obeying all directions given him.

When he first came to me he presented the appearance of great debility. He was very pale; his skin clammy with perspiration, which appeared on the least exertion; his pulse weak, compressible, and irregular. He suffered also with gastric catarrh, constipation, and paresis of the rectum. His forehead was contracted in the manner which is almost pathognomonic of hemicranial neuralgia.

The prognosis in this case was rendered less favorable by the facts that the patient had an invalid wife whose care interfered greatly with his rest at night; his occupation demanded a certain amount of work to be done every day, no matter whether he felt well or not; and, thirdly, he was subject to very severe and frequent attacks of neuralgia. The "anodyne" he used consisted of morphine, chloral, etc., and contained the equivalent of about five grains of morphine in the daily dose.

I give his history in his own words:

I have been a sufferer from neuralgia for upwards of fifteen years, prior to which I was habituated to large doses of quinine, thirty grains daily, on account of chills and fever. I began taking morphine, chloral, etc., nearly five years ago, to ease neuralgic pains when severe at night, and often to aid in accomplishing work that could not be done without such relief. About three years ago I began taking half-ounce doses of anodyne at bedtime, gradually increasing the dose to two half-ounce doses, with a prior dose late in the afternoon of from two to four drachms. This continued during the latter part of last winter and into the summer of this year, when by considerable effort I confined myself to eight drachms in twenty-four hours,—viz., two late in the afternoon, and two three-drachm doses at bedtime, an hour or two apart.

October 13, 1885, I visited Dr. Waugh and stated my case as above, with the additional complaint of constipation of bowels and lack of strength to exert the proper functions of the rectum without the aid of pressure by the hand. Under his advice, from October 13 to 20 I suspended the two-drachm dose in the afternoon, but continued the two three-drachm doses at bedtime, and consumed during this week from one-half to three-fourths of a cake of coca-bola per day. The only unpleasant symptoms of this week were coldness along the spine and neuralgia in right temple and eye, for three days and nights.

[Coca-bola is composed of leaves of Erythroxylon Coca, tea-leaves, coffee (roasted and ground), chocolate, cinchona bark, carbonate of potassium, and a small quantity of gum to make the whole into a mass. It is distinctly stimulating and sustaining to the nervous system.]

From October 20 to 27 I dropped to three drachms of anodyne at bedtime. Up to the 25th I was feeling poorly and having bad rest at night, with coldness in arms, shoulders, and back. Monday and Tuesday much improved. During this week consumed about three-fourths of a cake of coca-bola per day.

October 27. Visited Dr. Waugh; home at twelve midnight; took two drachms of the anodyne and a smoke, but did not sleep; got up at three o'clock and took the third drachm, and slept till six o'clock A.M.

October 28. Fairly well all day; to bed at nine and a half o'clock, and slept till twelve and a half; then took two drachms of the anodyne in hot water, and slept well till morning.

29th. Neuralgia in left of head and temple, began about six P.M., and at eight extended to eyeball; retired at ten o'clock, on two drachms of the anodyne in hot water, and rested well.

30th. Visited Dr. Waugh and had battery applied to temple, and during the day blistered back of neck; slept well, and in excellent condition on 31st.

November 2. Neuralgia began in right temple; visited Dr. Waugh in evening and had battery applied.

November 3. No neuralgia, and no marked inconvenience from lack of anodyne, last night.

November 4 to 10. No anodyne whatever, and the marked results have been restlessness and lack of sleep at nights. In the past week used from four to six chews of coca-bola per day (one-third to one-half a plug).

November 10. Neuralgia severe in right temple; battery was again applied, with but little or no effect. Since the use of the battery on this occasion, I found that it was not in proper working order,—viz., that the carbons and zincs did not touch the liquid, there not being sufficient in the cups. In consequence of the intense pain when lying down, and to get sleep, I arose at one A.M., and took two drachms of the anodyne in hot water; in half an hour after, finding no rest, took two additional drachms, and slept the remainder of night.

November 11. Slight neuralgia in left temple, which passed off before night.

From November 12 to 15 I was feeling very well during daytime, and getting good sleep on alternate nights.

November 16, I complained of dyspeptic feeling after supper and a lack of appetite in mornings to the doctor, who prescribed malt-extract before meals.

On November 22 I again had neuralgia in right temple; applied battery and chloroform-liniment alternately at least a dozen times during the day, with good results; to bed at eleven and a half P.M., and slept well all night.

November 23. Some neuralgia in the morning; applied battery, and before noon nearly all trace of pain had left.

The points to which I desire to draw attention are the following:

1. Morphine was first taken to relieve the pangs of neuralgia; next to produce sleep; and finally "to enable the user to accomplish tasks he would otherwise have been compelled to give up." These three steps illustrate the usual course of the formation of the opium-habit. Many cases of alcohol-addiction originate in the same way.

2. The galvanic battery failed the first time because there was no current developed, the fluid having leaked out of the cells. It never failed to give relief when put in order. The relief was not of long duration, necessitating repeated applications of the current until twelve had been made in one day. The net result was complete relief whenever the current was applied, and shortening of the duration of the paroxysm from four days to twenty-four hours.

This renders it imperative that the patient shall have his own battery, and shall be taught how to use it and to keep it in order. As its action is not attended with noise or sensation, it is well, before each sitting, to test its activity by applying the poles to the temples. If a flash is not seen, the battery needs overhauling. The faradic current is useless in these cases, and the use of the constant current in the intervals, to prevent recurrence of the paroxysms, has in my hands resulted only in disappointment.

In some cases four cells are sufficient, but I find it advantageous to have a battery made to suit each case, after testing them with my office apparatus.

3. Insomnia was in this case relieved admirably by five-grain doses of lupulin. This is a very efficient and safe hypnotic if used in sufficient doses. In chronic mania I have many times administered an ounce and upwards at one dose, repeated nightly for months without any bad effects.

4. Gastric catarrh and constipation

were relieved by the following combination:

R. Ext. rhei fl., f3ij;
Vin. ipecac., f3j;
Potass. carbonat., 3j;
Aquaæ, q. s. ad f3ij. M.

Sig.—A teaspoonful to be taken one-half hour before each meal, in a cup of very hot water.

5. Strychnine was given to prevent the recurrence of the neuralgic paroxysms. The general effect of this remedy is beneficial, though I doubt if Anstie's very favorable opinion of its merits be deserved. My own experience in its use is that, when given for a long time, it rarely fails to alleviate the severity of the disease, but in no case has it effected a cure.

6. The utmost pains were taken to improve the man's nutrition by diet suited to his digestive peculiarities, and by giving malt-extract with pancreatine before meals. Fruit and farinaceous vegetables were given freely, but the amount of nitrogenous food was limited. Moderate exercise was enjoined, stopping short of fatigue. Cold sponging was recommended, with a view of rendering the skin less susceptible to draughts. Neuralgics usually eat too much meat and use too little exercise and cold water. It is only in a small proportion of cases that Anstie's direction to "eat half as much more than when well" is suitable. I have frequently known a paroxysm to be induced by a heavy meal of meat taken by a person of sedentary habits.

7. One point I wish to notice is the administration of drugs in hot water. In this case the evening dose of anodyne was reduced from six drachms to two by giving it in hot water, the patient obtaining the same relief from the smaller dose. It is easy to conceive that the stomach-veins will readily absorb hot solutions, whereas cold ones will remain in the viscus until warm before absorption commences. Thus from the hot solution we obtain the whole effect of the drug at once, as we do in a hypodermic administration. Indeed, the former method might often be substituted for the latter, as the effects of the drug are manifested in almost as short a time.

8. These details of the management of the case having been arranged, what part in the play is left for the coca to enact? Is it not like the fourth officer in the satire on Marlborough, who, when his compan-

ions had taken the hero's sword, shield, and helmet, found that nothing was left of the hero for him to carry?

It is not enough to remove the primary cause of a bad habit, for there is often remaining the habit itself and its effects. Brown-Séquard directed attention to the reflex origin of some cases of epilepsy; but, years before, Esquirol had not only told us this, but had gone further, and shown that, even where the cause had been removed, the fits continued.

So here, the habit having been formed, this habit must be broken up, and the patient's strength sustained until this has been accomplished. For the purpose, therefore, of obviating the depression caused by discontinuing the stimulant, coca finds its field of action. At the time when my patient was accustomed to take his morning dose of anodyne, the distress was completely relieved by chewing coca.

I cannot account for the preference given by some to the hypodermic use of cocaine. I doubt if we are ever justified in teaching a patient the use of the hypodermic syringe. Even for physicians, whose eyes are open to its dangers, it is unwise to use it upon themselves. But it is still a vital point in the administration of a remedy that it should be available at the moment it is needed. This is why I prefer the coca-bola plugs, which are so easily carried, and can be used without attracting notice.

As in the alcohol-habit, so in opium-addiction, the seat of the craving is often in the nerves of the mouth and stomach. The curious qualms complained of are located in the stomach. Hence, by this method of administration, we get the anæsthetic effect of cocaine on these nerves, in addition to the constitutional action of coca.

The chemistry of this drug has been by no means exhausted. It is probable that it has other valuable constituents besides cocaine. Recent investigations, not yet in print, have shown that in several popular wines of coca there is scarcely a trace of cocaine,—too little to be of use: so that whatever virtues these preparations possess are due to other ingredients.

I am continually asked if there be any danger of the formation of a coca-habit. Leaving open for the present the question of whether there would be anything objectionable in such a habit, I can only say

that I have never seen it formed. Thirteen years ago I first met coca, in South America. Since then I have used it in hundreds of cases, and have yet to hear of any one becoming addicted to its use. Since the publication of Dr. Bradley's case, I have quietly informed myself as to all the cases within my reach, and find the history quite similar in each. As the morbid appetite for which coca was given died out and the health became restored, the use of coca gradually decreased until it was no longer used. Repeated inquiries elicited the invariable response that no greater difficulty was experienced in discontinuing the use of coca than in quitting coffee or chewing-gum.

The very remarkable cases of cocaine-habit reported from the West are so unlike anything I have ever seen that had they appeared in the secular press I would have concluded they were evolved from the inner consciousness of some hungry reporter. They may serve, however, to emphasize my remarks on the use of the hypodermic syringe.

In conclusion, I desire to quote a few words from the patient whose case forms the basis of this paper. He said to me on his last visit, "Doctor, you told me I must expect a struggle, no matter how I was treated. Now, I cannot say I have had any struggle worthy of the name, nor have I felt the need of any great exertion of will-power. Every unpleasant sensation has been met by a remedy, and at no time have I felt any particular distress." I may add that I had repeatedly examined this patient's urine for morphine, and thereby verified his statements completely.

A CASE OF EXTENSIVE HEAD-INJURY.

BY A. P. FRICK, M.D.,

A. A. Surgeon, U.S.A.

MRS. P., a woman about 18 years of age, was assaulted, late in the evening of March 23, 1884, by her husband, who with an axe inflicted a severe wound on her head. The wound of entrance extended from a point three-fourths of an inch above the external canthus of the left eye posteriorly eight and one-half inches, and penetrated the cranium to the dura mater, which, however, escaped injury. The edge of the axe, after passing some

distance between the dura mater and inner surface of cranium, passed outward, cutting into the bony meatus of the ear, severing the mastoid process of the temporal bone, and making a wound of exit. This wound of exit at its outer side measured, from just behind the lower third of the left ear, postero-superiorly, two and one-half inches. The posterior end of this wound was one and one-half inches from the posterior extremity of the wound of entrance. The point of the axe, after passing out below, inflicted also a slight wound in the integument of the neck, in length a little over one inch antero-posteriorly, about one inch below the wound of exit. The measurement from the external auditory meatus to central part of wound of entrance was four and one-half inches; to its posterior extremity four and one-half inches; and three inches to its anterior extremity.

A fragment of the frontal bone about one inch in length and one-half inch wide was included in the flap of the wound, and there were multiple fractures about the squamous suture of the temporal bone. A large portion of parietal bone was included in the flap.

At the wound of exit the nature and extent of the fractures could not be definitely ascertained; but the edge of the axe severed a portion of the mastoid process of the temporal bone and entered the bony meatus of the ear, where its further progress was arrested. The axe was not very sharp; otherwise it would have completely severed the left side of the head (the ear included) from the body.

The woman was short in stature, fleshy, and in very robust health at the time of receiving the wound. At the moment of assault she was occupying a low seat. The husband, swinging the axe over his head, evidently aimed for the middle of her cranium. The distal angle of the cutting edge, sweeping from the posterior end of the wound of entrance, passed downward and forward, leaving intact the little isthmus of scalp of one and one-half inches from the posterior end of the wound of entrance to the postero-superior end of the wound of exit, and causing the two-and-a-half-inch wound of exit already described, as well as the small wound of the integument of the neck before mentioned.

The outward pressure of the upper or butt end of the axe caused the wide gap-

ing of the wound, the downward sagging of the nearly-severed side of the head, and the free exposure to sight of the dura mater, with its pulsating movements.

It was eighteen hours after the wound was made when I first reached the bedside of the patient. A very luxuriant growth of hair and cloth wrappings were matted into and disguised the extent of the wound. My first steps, after injecting eight minims of Magendie's solution of morphine hypodermically, were to soften the mass with a carbolized solution and to remove the cloths, hair, and other foreign matter, including clotted blood, from the wound and its surroundings. No bleeding points were found that could not be arrested by torsion.

After thoroughly and carefully cleaning the wound, and replacing the parts as nearly as possible in their natural position, I closed the wounds with the interrupted suture. About one inch of the wound of exit behind the ear was left open for drainage.

There were no cerebral symptoms, and the woman was able to converse freely about the assault by her husband. Lint saturated with a two-per-cent. solution of carbolic acid was now placed upon the parts and ordered to be kept constantly saturated. General hygienic directions were given, and restricted diet, a saline laxative, and hot foot-baths at night were ordered.

On the third day after receiving the injury the condition of the patient was found quite as favorable as could possibly be expected; temperature, 99°; pulse 100. Carbolized lotion continued, and such general care as to diet and hygiene as was possible in the hovel which constituted her dwelling-place was ordered, and opiates were left, to be used as directed.

On the fifth day the patient was found better than had been looked for; temperature 99 $\frac{1}{2}$ °; pulse 120; the discharges were becoming profuse and fetid; same treatment continued.

On the seventh day she was doing well; discharges less fetid, temperature nearly normal, and pulse 90. A drainage-tube was now introduced into the wound of exit behind the ear a distance of about three inches; three grains of quinine at a dose were ordered to be taken three times daily, and an irrigating apparatus was constructed. Instead of the carbolized lotion, a solution of bichloride of mercury

(fifteen grains to the quart of water) was substituted, which proved most efficient and satisfactory as an antiseptic. All parts of the wound were kept thoroughly drained through the drainage-tube already referred to. The visits were continued every other day, and the same general treatment continued for seven weeks.

At no time throughout the treatment were there any brain-symptoms indicating pressure or irritation, and never any greater elevation of temperature than $101\frac{1}{2}^{\circ}$. Great difficulty was experienced in keeping the parts properly in place, as the original sutures failed to hold, constantly tearing through the tissues of the scalp. At first the sutures were renewed, but with unsatisfactory result. A large portion of the head was then smoothly shaved, and the parts held in place by carefully-adjusted compresses and adhesive strips, radiating in a fan-shaped manner from a point just below and in front of the left ear.

During the first week in June, 1884, a little less than two and one-half months after the injury was sustained, this patient was able to attend as a witness in the trial of her husband at Prescott, Arizona. The drainage-tube, which then entered less than half an inch, was permanently removed, and I finally discharged the patient, cure completed, on June 11, 1884.

FORT THOMAS, ARIZONA, February 4, 1886.

METALLIC STRIPS WITH ADHESIVE PLASTER FOR HARE-LIP DRESSING.

BY J. NEELY RHOADS, M.D.,

Resident Physician, Jefferson Medical College Hospital.

THE following device, which Mr. Snowden has made under my direction, has been found useful at the surgical clinic of the Jefferson Medical College in the treatment of cases of hare-lip, to avoid tension upon the wound. The little apparatus is shown after its application in the illustration, and it is made as follows. Have your instrument-maker prepare two pieces of metal about two and a half inches long, three-fourths of an inch broad, and about as thick as heavy tin or thin sheet-iron, and one-eighth of an inch distant from one end of each let him make three one-eighth-inch holes, then have them both bent so that when applied to the face the short



ends stand out from the face parallel to each other, the line of the bend to be three-fourths of an inch from the holes represented by A B in the diagram. The metal should be steel, with the temper taken out of about an inch of the ends opposite the holes, and these ends should also be ground very thin, so as to be pliable and to prevent any possible compression. They should also be perforated with several holes, so that the plasters would adhere more firmly, and so as to allow them to be sewed fast to the plasters if necessary. Then cut four pieces of adhesive plaster (preferably belladonna, as it has crinoline upon it) six inches long and two inches broad: take one of these pieces, lay it crinoline side down, draw a line through the middle lengthwise, and moisten its non-sticking surface with mucilage or some other adhesive material; then line one of the metals in the middle lengthwise and lay it upon the back of the plaster, line upon line, and so that the edge of the plaster conforms to the angle of the metal, as shown by the cut; then take another plaster, remove the crinoline, and place it with its adhesive surface upon the metal and other plaster, exactly covering the latter. Take the two remaining plasters and other metal and prepare in same manner. Now, with the scissors trim the plasters to conform to the face, letting them taper towards the back of the head, then sew a buckle on the tapered end of one of these so that they can be buckled together. After the operation,

remove the crinoline from the metallic ends of the plasters far enough back to allow the plasters to adhere to the face, allowing it to remain on the back of the head, to prevent the plasters from sticking to the hair.

Then apply them to the face so that the metal end of each will be three-quarters of an inch from the wound, and so that the angles A B will be about one and a half inches apart; fasten the other ends at the back of the head loosely, so that the integument can be drawn forward; then pass a small cord through the holes in the metals and draw them together, so as to remove the tension from the wound.

By this contrivance crying babies are prevented from tearing out the stitches, as all such force is confined to the cords; consequently the operation can be done with fewer stitches, giving the parts a still greater chance for free circulation; and, the cords being three-quarters of an inch in front of the wound, it can be dressed without interfering with them, so that the plasters can remain on till the wound is entirely healed. I think that a similar contrivance would also answer for adjusting wounds in other parts, especially in stout persons, where it would be wise to avoid all unnecessary inflammation. Such wounds, I think, could be made to heal without the use of a stitch in the flesh.

Of course the plasters for the hare-lip wound need not be just the size or shape represented above, as they may be made large enough to cover the entire cheek.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF J. M. DA COSTA, M.D.

CLINICAL REMARKS ON A CASE OF HEART-DISEASE WITH PHthisis—BACILLI FOUND IN SPUTUM—FREQUENT HEMORRHAGES.

GENTLEMEN.—The case of M. B. presents a rare clinical combination. He occupied bed 27 in the Men's Medical Ward, and is a laboring-man of good habits. Fifteen years ago he had an attack of rheumatism which kept him in bed for three months. After this he felt well, except an occasional rheumatic pain, until December, 1884, when he began to suffer with giddiness, headache, with black spots and flashes of light before his eyes. About the same time he caught cold and had

much cough and expectoration, beginning rather suddenly, which he is not yet free from. There was no person living with him in the same house who had a cough that he knows of; he is certain that this cough began suddenly and was due to exposure to cold. In January, 1885, he had a hemorrhage from his lungs which was rather free, since he states that he lost about a quart of blood. During the winter he grew worse; the hemorrhages became more frequent,—he had two or three a week at one time,—but his appetite has continued good, and he thinks that he lost very little in bodily weight.

He was admitted one month ago with marked lung-disease, and since then has had six hemorrhages, attended with rise in temperature. Between the attacks his temperature was 99°; during these periods it was 101°. For about ten days before each hemorrhage he had observed that he suffered from chills at night, often followed by heavy sweats; he occasionally sweats at other times. He has some irritative fever and sweats after each hemorrhage for a few days; then he has another chill and sweats, followed by another hemorrhage. The expectoration is mucous, and is not profuse, except during the hemorrhages; it decreases for a few days after the bleeding, and then gradually increases until the next one takes place. Evidently the hemorrhage is a relief to him, as he always has less pain and cough after it.

There is a point of interest in connection with the prognosis which remains to be mentioned. He has tubercle-bacilli in his expectoration: they have been detected at each examination.

His present condition is fair: his appetite is good, bowels regular; there is a slight rise in temperature at night, and he has no sweats except just before the hemorrhage. His urine is acid, specific gravity 1023, and contains neither albumen nor sugar; the phosphates are in excess, especially before a hemorrhage. His temperature has been irregular,—101° just before the attacks, and almost normal between them. He is not losing weight. His face is pale, tongue coated, body not emaciated, nails curved moderately, and finger-ends slightly clubbed. He expectorates about a pint of frothy mucus in twenty-four hours. Upon listening to his heart I find unmistakable evidence of aortic regurgitation, a distinctly-marked long

murmur taking the place of the second sound, most evident at midsternum, and slightly to the right; it is also heard faintly transmitted to the apex. The first sound is rather dull, but there is no distinct murmur. There is a moderate amount of cardiac hypertrophy with dilatation.

Now we will see the physical conditions that pertain to the lungs. There is marked dulness on percussion existing over the whole of the upper part of the right lung anteriorly, and the same is observed posteriorly. When I place the stethoscope under the right clavicle, I find crackling and cavernous respiration, and the murmur from the heart is extremely well heard over this portion of the lung. There is whispering pectoriloquy also heard over the spot indicated. Coarse crackling is found at the lower part of the right lung anteriorly. Harsh, almost bronchial, breathing exists at the upper part of the same lung posteriorly. Percussion-resonance is good over the left side of the chest; exaggerated respiration, but still vesicular, is heard over the apex of the left lung, with slightly-prolonged expiration. Posteriorly, vesicular breathing is heard, slightly exaggerated here and there over the left side. Upon a held, full inspiration, more marked dulness than before is developed at the right apex, and just under the left clavicle the percussion-note is not quite so clear as it is below. There is no impairment of special senses, and no swelling of his feet.

Now, gentlemen, here you have before you a curious case. In the first place, as regards the diagnosis, it is very evident what is the matter with the man. He has aortic regurgitation, and he has a cavity at the apex of his right lung: the right lung, indeed, is pretty generally involved. The left lung is just beginning to be affected; there is beginning consolidation just under the left clavicle. It is also very evident, if the microscope be of any use in diagnosis, that the breaking down of the lung is tubercular. We have here, then, a combination of tubercular disease with aortic regurgitation; no aortic narrowing, or certainly not to any extent.

Now, you will ask, Is this combination a frequent one? Do you often find cases of consumption with so marked a lesion of the heart? No; it is very rare. Even so great an authority as Rokitansky says that,

as a rule, if you have disease of the heart you will not have consumption; and, if consumption, no disease of the heart. This case shows the fallacy of the rule. But in children with defective circulation due to aortic narrowing, I think that one authority—Lebert—lays this state down among the causes of consumption. In other words, where the circulation through the lungs is defective in childhood, owing to this stenosis of the aortic orifice, the subject is liable to consumption in after-life.

Now comes another very interesting question for consideration. Was this primarily a case of consumption, or was it originally, as he has said, due to a cold, and did the consumption afterwards become engrafted upon it? This is one of the most important of the questions of modern medicine engaging the attention of clinical observers and pathologists at the present time. But you ask, Can a consumption begin with inflammation, or can a pneumonia end in consumption? I think that this case will support me in the view that there are a certain number of cases in which, beginning as ordinary inflammation, the consumptive process becomes afterwards engrafted upon them. How it becomes developed—whether the bacilli find in the diseased lung a suitable nidus for their growth, or whether they are capable of originating the process—we cannot now decide. The fact is that here is a man with heart-disease who should not have consumption, but at the same time he presents a condition of the lungs generally recognized as distinctive of phthisis,—consolidation, a cavity, and bacilli in the sputa.

I think that the only solution possible is that the pulmonary lesion began as an inflammatory process due to a cold, and that the bacilli subsequently found here a suitable nidus for their development.

Coming now to the peculiar feature in the clinical history of the case, we observe that the hemorrhages diminished his pains and seemed to do him good: they relieved the congestion of the lung. Even in cases of consumption where there is no disease of the heart you will often find that some hemorrhages occasionally will relieve the congestion. In these cases the patient is usually uncomfortable for several days, the symptoms are worse, until finally the bleeding occurs and he is better. The indication then would be not to interfere

too actively with the haemoptysis, but to let nature take its course.

He has been taking half a drachm of the syrup of the iodide of iron three times daily, and a tablespoonful of cod-liver oil after each meal. To this may be added veratrum viride, to prevent the tendency to congestion of the lung. He shall have five minims of the fluid extract once or twice daily. He sleeps in a well-ventilated room, has abundance of nourishing food, and shall take exercise in the open air when the weather will permit.

TRANSLATIONS.

VICARIOUS HEMORRHAGE FROM THE EARS, WITH TEMPORARY DEAFNESS.—Stepanow, in the *Monatschrift für Ohrenheilkunde*, No. 11, 1885, reports a case of a young girl, 17 years of age, suffering with dysmenorrhœa, who had much general disturbance at the menstrual period, and bleeding from the left ear. She had had nervous manifestations accompanying her menses from the thirteenth year of her age; later, in place of menstruation, bleeding occurred from the ears, at first from both, later from the left ear alone. Previous to the hemorrhage the patient complained of steady pain, vertigo, and general weakness, accompanied by deafness. The tuning-fork applied to the skull revealed a diminution in hearing corresponding with that shown by inability to hear whispers or the ticking of a watch. Objective examination showed no changes whatever in the ear, not even hyperæmia; during the examination no blood was detected, although shortly afterwards the canal was found filled with blood. The reporter believed that there was no possibility of simulation.

The report further observes that there can be no doubt (1) that the blood issued from the walls of the auditory canal, while the parts were entirely intact; and (2) that it came from the portion external to the drum-head, and not from the middle ear. When the bleeding stopped, the hearing rapidly improved, and in a few days became normal. The anaesthesia of the auditory canal Stepanow attributes to a direct effect of the trophic and vaso-motor disturbances in the region of the labyrinth, and not to an hysterical cause. With regard to the manner of the bleeding, the

author holds as the most plausible explanation that "it occurs by diapedesis; and that, perhaps, by analogy with the so-called stigmata of hysterical subjects, the sebaceous glands of the auditory canal play no small part in its causation."

ETIOLOGY OF PURPURA HÆMORRHAGICA FEBRILIS.—In the *Archiv für Experiment. Pathologie*, etc. (vol. xix.), Dr. Reber reports a rapidly fatal case of gangrenous tonsillitis, complicated with purpura hæmorrhagica, in which he was able to detect in the blood and tissues numerous micrococci in chains. This organism was then cultivated on gelatin for six months, when the organism was found to have died out. The few cocci found were smaller than the micrococcus of osteomyelitis. The occurrence of the hemorrhages was attributed to blocking up of the smaller vessels by emboli formed of micrococci; although this hypothesis was not confirmed by observation.—*Centralblatt für die Medicinischen Wissenschaften*, No. 8. [The propriety of considering this a case of purpura hæmorrhagica seems questionable.—ED.]

TOTAL EXTRIPATION OF THE CARCINOMATOUS UTERUS.—In the statistics recently contributed by Schultz to the *Deutsche Medizinal Zeitung* regarding the mortality in cases of malignant disease of the uterus, an error crept in owing to the accidental omission of the forty-sixth year from the calculation. The number of deaths from all causes among women from the forty-sixth to the fiftieth year inclusive is 6.66 per cent. of those living, and of these deaths 6.62 per cent. die of cancer of the uterus,—i.e., 0.3641 per cent., and not sixty-six per thousand, as Schröder's book states, nor thirty-six per ten thousand, as the author recently stated, but forty-four per ten thousand (from the forty-sixth to the fiftieth year inclusive). Schröder's statement, therefore, is not eighteen, but fifteen, times too high.—*Deutsche Med. Zeit.*, February 22. [See page 348, ante.—ED.]

BENZOATE OF COCAINE.—According to Dr. Bignon, the benzoate is the best of the salts of cocaine for producing local anaesthesia. It may be extemporaneously made by combining one part of benzoic acid with three parts of cocaine.—*Nouveaux Remèdes*.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MARCH 20, 1886.

EDITORIAL.

PROFESSOR AUSTIN FLINT.

IT may truly be said that the sudden death of Professor Flint has been more widely felt and has caused a deeper sense of affliction than would the loss of any other member of the medical profession at the present time. This is due not only to his eminent services to American medicine and his brilliant career as author and teacher, which he continued with undiminished activity to the latest moments of his life, but especially to the pre-eminent position which he occupied and the influence which he was enabled to exert in behalf of the best interests of the profession. He had a world-wide reputation as a distinguished author, as a successful teacher, and as a defender of the Code of Ethics; but his highest honor was that by the unanimous choice of both the old and the new executive committee he was declared to be the American physician most worthy to preside over the deliberations of the International Medical Congress, and it was confidently believed that, by the force of his character, and the influence which he possessed among members of the American Medical Association, he would be enabled to heal all dissensions and securely establish the success of the Congress of 1887. This hope is rudely dissipated by the immutable decree of death; but the affairs of the Congress, having had the benefit of his guiding hand thus far, it is hoped will proceed without serious interruption to a successful conclusion.

Professor Flint, like his friend Professor S. D. Gross, died surrounded by friends and full of years and honors. It was his privilege to contribute in no small part towards

the elevation of American medicine to the high position which it now occupies in the estimation of the profession of Europe.

"Non hoc supremum munus amicorum est, prosequi defunctum ignavi fletu, sed, quæ voluerit, meminisse; quæ mandaverit exsequi."

CHANGES IN THE BLOOD FROM MALARIAL POISONING.

IN a communication read before the last International Medical Congress at Copenhagen, Professor Tommasi-Crudeli narrated the results of observations, made in Rome, relating to certain specific alterations occurring in the red blood-corpuscles in consequence of malarial infection. The researches which he had inaugurated were continued last year by Marchisava and Celli, whose results throw some light upon the origin of the black pigment in the blood of malarial cachectics, but leave the question of the nature of the infecting agent still unsettled. These later investigations have been communicated by Professor Tommasi-Crudeli to the *Indian Medical Gazette*,* the paper being accompanied by illustrations representing the alterations taking place in the red blood-corpuscle during the malarial infection. These observations proved that the source of the melanin found in the blood and tissues of chronic malarial subjects is a destructive change occurring in the haemoglobin, which takes place in the interior of the red blood-corpuscles, the degeneration spreading uniformly and progressively through the globular protoplasm. At first some very small black granules are seen, apparently in the interior of the cell, which gradually increase as the degeneration advances. Coincidently with this increase in the number of black granules, there is a disappearance of protoplasm in parts of the globules and the substitution of a colorless material. This

* Calcutta, January, 1886.

substitution occurs irregularly, and may commence either at the centre or at the periphery: in the latter case the colorless hyaline material often assumes a crescentic form. In the final stage the red blood-globules are found converted into hyaline spherules containing a great number of black granules, which, for the greater part of the time, exhibit well-marked oscillatory movements. On the disintegration of these spherules, the melanotic granules are set free, and are to be found slowly swimming around in the blood-plasma or collected in clusters in the white blood-corpuses, or, as is frequently the case, adherent to entire red globules.

It was these hyaline and pigmentary bodies which by Laveran and by Richard were mistaken for a parasitic organism, and the slender filaments among the detritus of the red blood-corpuse were described by Laveran as the completely mature parasite; but Marchiafava and Cuboni found the same pseudo-bacillary forms in the blood of patients suffering with pernicious fever. Tommasi-Crudeli states that these appearances are products of disintegration of the red blood-corpuses, and can be obtained at pleasure by heating normal blood to 104° F., and that they are also nearly always found in the blood in febrile states. They are to be distinguished from bacillary forms found by Crudeli in the blood of malarial subjects.

In the very interesting paper from which we have quoted, the progressive changes of the blood-corpuse are depicted, and the value of their appearances in diagnosis is insisted upon. Whether the granules are the germs of a schizomycete or are of a different nature, and whether the hyaline change is due to a parasitic amoeba or is simply a retrograde form of protoplasm, are questions which cannot be definitely determined at present. But the fact has been determined that the changes above detailed took place in every malarial case the blood of which had been examined.

It is believed that this may render great service in the diagnosis of anaemia, neuralgia, and other cases, such as pernicious fever and purpura haemorrhagica, where the prompt detection of the true nature of the malady may become of vital importance.

HEADACHES ASSOCIATED WITH CHRONIC NASAL CATARRH.

THE reflex headaches due to eye-strain, and to disorders of the pelvic organs, are now generally recognized by the profession and receive appropriate treatment. It is only comparatively recently, however, that attention has been directed to headaches associated with catarrh and other morbid conditions of the naso-pharynx. A discussion following a paper on the "Reflex Symptoms in Nasal Affections," read by Dr. Gruening before the New York Academy of Medicine, has already appeared in the *Times*.*

The relationship existing between pathological conditions of the upper air-passages and migraine and other neuroses was emphasized in this discussion, and the examination and appropriate local treatment of recognizable nasal disease were plainly shown to be essential features of the rational treatment of such cases.

More recently Dr. Harrison Allen, of this city, has read a paper before the Philadelphia Neurological Society on the "Headaches which are associated clinically with Chronic Nasal Catarrh," in which identical views are expressed, although independently reached, since the paper was prepared before the earlier discussion was published. Dr. Allen describes three principal forms of headache occurring in the course of chronic catarrh, —the reflex, the neurotic, and the inflammatory. The distinction between the first two forms does not appear quite clear, but the diagnosis between them and the hemi-crania of gastric origin and other forms of

* Philadelphia Medical Times, February 6, 1886, p. 364.

headache is easy. The headaches of inflammatory origin are due to extension of the disease. The author cites only the invasion of the frontal sinus by congestion or inflammation as examples occurring in his own experience. It should not be overlooked, in cases of headache due to nasal disease, as stated by Beverley Robinson in the discussion previously referred to, that there exists in the subject a special neurotic susceptibility or predisposition which requires consideration as well as the local condition. All cases of chronic nasal catarrh do not suffer with headache.

TO THE EXECUTIVE COMMITTEE
OF THE INTERNATIONAL MEDICAL CONGRESS.

THE death of the late Professor Austin Flint has rendered it necessary to have another standard-bearer around whom all may unite in securing and advancing the best interests of the International Medical Congress of 1887. We respectfully suggest that there is one who we believe, if nominated, will make the Congress an undoubted success, and who, moreover, is pre-eminently qualified for the position. Without his knowledge, concurrence, or consent, we take the liberty of naming, as most worthy to succeed to the vacancy, J. M. Da Costa, M.D., LL.D., Professor of Practice of Medicine and of Clinical Medicine in the Jefferson Medical College, ex-President of the Philadelphia College of Physicians, a distinguished member of the American Medical Association and of various Foreign Societies, and one whose reputation as an author, teacher, and physician is world-wide.

It is evident that a physician should be selected, since in 1876 the choice fell by unanimous consent upon a surgeon; and we believe that the distinguished member of the profession who was the unanimous choice of the original Executive Committee as Chairman of the Section of Practical Medicine should now be nominated for the presidency of the Congress.

ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.

FROM the Chairman of the Executive Committee we learn that the organization of the International Medical Congress is nearly complete. More than three hundred of the representative physicians in all parts of the country have now signified their acceptance of nominations in the several Sections, and declared their willingness to do all in their power to make the Congress successful. We are glad to hear that the Secretary-General, Dr. Davis, is regaining his health, and has not abated his enthusiasm for his task. He expects to be able to present a very favorable report to the St. Louis meeting of the American Medical Association.

NOTES FROM SPECIAL CORRESPONDENTS.

CHICAGO.

EARLY in the winter an effort was made to establish a polyclinic, and two or three medical men gave a good deal of attention and time in this direction. The plan upon which they worked was to induce some of the more prominent members of the profession to accept stock and a professorship. Most of those approached took kindly to the professorship, but failed to display any great keenness of appetite for the stock.

The stock was intended for the purpose of establishing a hospital for the sole use and purposes of the polyclinic. The gentlemen having the matter in care met with so much sympathy and so little substantial aid that they quietly pigeon-holed the whole business.

En passant: the practitioner's course at the schools in this city has not proved a brilliant success. Some have succumbed to old age (?); others are growing weak and demand that careful attention so necessary to the support of failing powers. Now comes the new idea,—viz., "mutual protection against blackmail."

One of our younger collaborators has undertaken the organization of a protective society against blackmailers. This gentleman has read a paper, issued circulars, etc., to members of the profession, elicited an expression of opinion in writing from half a dozen or so, and now awaits results. The necessity for the existence of such a protective association is questionable. Its organization assumes that all prosecutions for mal-

practice are blackmail; that the profession are so open to constant attacks of this character that a banding together is necessary for protection. Of course this is unsound, as we all know that there are many cases for malpractice when the plaintiff has a good cause in equity. The formation of a society for mutual defence against blackmail would certainly not elevate the profession in public esteem. As well might the general public organize such a society, for I believe the medical profession are not any more subject to such attacks than are those in the various walks of life. When a genuine case of blackmail presents, why not have the local medical society lend its moral and material support, just as the New York County Medical Society has done in the case of the Drs. Purdy? Would not this latter form of aid be less likely to prejudice such juries as we now have? There may be some excuse for additions to our already numerous societies, but there can hardly be one for the existence of a "Physicians' Protective Association."

Our medical colleges have, with a single exception, had three commencement exercises for the year, and all appear enthusiastic over the increase of business. Rush College came first, graduating a class of one hundred and sixty-one, the diplomas being presented with great ceremony at Central Music Hall on the afternoon of February 16. The usual banquet was given at the Palmer House, four hundred persons being at table. The graduating exercises of the Chicago College of Physicians and Surgeons were held at the Grand Opera-House February 24; diplomas were presented to eighty-two candidates. A banquet was given by the faculty at the Sherman House, one hundred and fifty being present.

The exercises attending the tenth commencement of the Chicago Homeopathic Medical College took place at the Chicago Opera-House February 24; the graduates numbered fifty-two. Hahnemann Medical College graduated one hundred and fifteen, and on the same evening entertained two hundred and fifty at a banquet. It is generally conceded that the homeopaths had the best band in the line, and it is evident that they have nothing to complain of from a business point of view. Though some of the regular schools are advertising through the daily press, they lack the business tact of the homeopaths.

One of our most prominent professors was interviewed a day or two ago by a newspaper man on the question as to "Where do the students come from, and where do the doctors go?" I quote the last answer given as being a fair sample: "But there is no danger of the profession becoming overcrowded. The young doctors now going out are going to the new towns and to take the place of the old doctors, and those

who become disqualified from year to year through the passage of State laws regulating practice. Then we have fifty million people, and the medical colleges will do well if they keep pace with the growth of population, without the fear of equipping too many doctors."

In view of such an opinion, coming from a prominent teacher, it may interest your readers to know that we have in this city about one physician to every three hundred and sixty-five of population, and yet this city is growing more rapidly than any other centre. The health of the city during the winter has been fully up to the standard of past years.

CHICAGO, February 27, 1886.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA ACADEMY OF SURGERY.

A STATED meeting of the Philadelphia Academy of Surgery was held March 1, 1886, the President, Dr. D. Hayes Agnew, in the chair.

Dr. Samuel Ashurst read a memoir of Professor S. D. Gross, founder and first President of the Academy.

Dr. Charles B. Nancrede read the following report of an

EXTENSIVE GUNSHOT-FRACTURE OF THE CRANIUM WHERE RECOVERY TOOK PLACE.

Ellen McM., *aet. 17* years, was admitted October 20, 1885, into the female surgical ward of the Episcopal Hospital, under my care, with an extensive compound comminuted fracture, involving the left orbital, frontal, and temporal regions, the result of a charge of shot received at a distance of about fifteen feet. The whole of the right eye was destroyed, including nearly all the eyelids. The supraorbital ridge was bared and fissured, as well as about three square inches of the vertical plate of the frontal bone. The nasal bones were fractured, and the upper half of the right cheek and soft parts of the same side of the forehead were extensively lacerated. The charge had entered obliquely from below upward and to the right, producing a large, ragged opening through the back and upper portion of the orbit, capable of admitting with ease two fingers. The anterior portion—perhaps the whole—of the right temporal fossa was forced outward at its anterior part, apparently from the impact upon its inner surface of the charge of shot, leaving a fissure nearly corresponding to the temporal ridge into which the whole middle finger could be laid,—*i.e.*, it was about two-thirds of an inch wide. Brain-substance oozed from this fissure and also from the orbit. There was nearly complete paralysis of the left arm and apparently of the leg when I saw her, and right-

sided facial paralysis. Total hemiplegia existed the next morning. She remained unconscious for four days.

October 24. She spoke a few indistinct words, and attempted to answer slowly when spoken to.

October 25. She remained in a semi-conscious condition, with considerable delirium, uttering at times loud screams. The speech slowly improved and the delirium subsided, but the hemiplegia remained complete until November 28, 1885, when she for the first time moved the fingers and toes of the left side. She could also slightly flex the left leg, but could not extend it again. In two days more she could feebly grasp with the left hand and extend the leg. On the evening of the same day a small sequestrum was removed from the outer edge of the bared bone.

February 16, 1886. The hernia cerebri, which formed shortly after the accident, has all subsided, she can walk with ease, and the grasp of her left hand is good, although weaker than that of the right. A shell of the outer table of the frontal bone, including about half of the split external angular process, was removed to-day. The major part of the enormous wound is cicatrized, what is open being filled with healthy granulations. Menstruation, which was interrupted, is now regular.

These very brief notes, abstracted from those kindly furnished me by my former resident, Dr. H. Robb, very inadequately describe an injury such as is rarely recovered from. Apparently serious injury was done to the centres of the arm and leg, producing the partial paralysis, which became complete so soon as cerebral inflammation supervened, to disappear again as the exudates were absorbed. Antiseptic treatment was adopted, and only gentle pressure applied over the hernial protrusion.

DISCUSSION.

Dr. William B. Hunt: Speaking about injury of the orbit and fracture, while I was a resident a case came into the Pennsylvania Hospital where the orbit was injured. There appeared to be an immense quantity of brain-substance oozing out, and the surgeon in charge at once gave a fatal prognosis. What appeared to be brain-substance turned out to be nothing but the delicate fat of the orbit. It was very deceptive. In the case reported to-night it is evident that these centres were not destroyed, but only injured by pressure, possibly from hemorrhage.

I would also call attention to a case which I reported in the "International Encyclopædia," which is the only one of this kind that I have met with. A sailor was attacked with heat-fever when four days out from port. In the delirium he tried to throw himself overboard, but was prevented. He then sought a secluded place, and with a hatchet beat in

his skull and then removed the pieces of bone himself. He said he felt better then. Four days later the vessel arrived in New York. Having friends in this city, he came here, and walked into the Pennsylvania Hospital with his hat on. There was found an extensive fracture of the skull. Soon paralysis of the arm and leg of the side opposite that of the injury appeared. One day in dressing the wounds a piece of bone one inch by one and three-quarters, which had escaped detection, was found and removed, and at once the paralysis disappeared. The destruction of the brain was, however, so great that softening continued, and the man finally died.

Dr. Charles B. Nancrude: I do not believe that in the case I have reported the centres were destroyed, and I did not say so; but I do say that it will be found that a force applied from within sufficiently powerful to drive out the amount of temporal fossa, as I have described, followed at once by an inability to use the limbs, which by the next day has developed into complete paralysis, must have injured these centres. I do not see how the covering of this portion of the brain could be lifted off without injuring the centres beneath. I think there was not sufficient hemorrhage to account for the symptoms. I have reported a case where a knife-blade was in the brain for nine weeks and the patient was not aware of it. It was just back of the fissure of Rolando. Some one had taken out the blade before I saw him. He then had violent convulsions, and I trephined the skull and found a little scaling of the internal plate. Then he showed symptoms of brain-abscess: he was completely paralyzed on the opposite side. One morning when I came to the hospital I was told that he was dying. I at once took out my pocket-case and laid open the scalp, and with the aspirator made three or four punctures into the brain through the opening in the skull without finding pus. I next began to trephine rapidly in front of the first opening. When I got about half-way through, the pulse stopped, and some six or seven physicians who were present pronounced him dead. I was about giving up the operation, but decided to complete it and remove the button of bone. I then found a drop of pus coming from one of the punctures which I had made. I then plunged a bistoury one-third of an inch into the brain, and out gushed two ounces of pus. We then resorted to methods for his resuscitation, but it was three or four minutes before he began to breathe at all, and it was an hour before he was able to breathe by himself. Before the operation the man was completely paralyzed on the right side, but before I left the hospital he attempted to use the right arm. The man lived six days after the trephining.

In the case that I have reported I believe that the centres were injured at the time of the accident, and that the symptoms were the

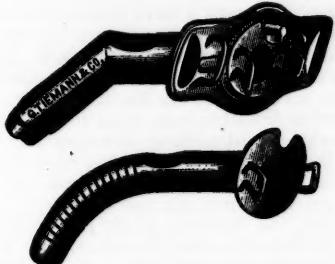
result of the pressure of inflammatory exudation, which has been absorbed, accounting for the return of function.

Dr. William W. Keen read the following paper on a

MODIFICATION OF THE TUBE FOR TRACHEOTOMY.

In the Medico-Chirurgical Transactions for 1879, Mr. R. W. Parker proposed a modified curve for the tracheotomy-tube, making the tracheal portion nearly vertical, so as to follow the direction of the trachea. His object was to avoid the pressure against the anterior wall of the trachea by the lower end of the ordinary tube, which has a uniform radius of curvature. This pressure, as he showed, not seldom resulted in ulceration, and sometimes in serious hemorrhage.

The anatomical reason is a valid one, since the trachea runs at an angle with any tube inserted from the skin to the calibre of the trachea. The fact that these two parts—(1) that from the skin to the trachea and (2) that in the trachea—are both straight, but are at a decided angle to each other, induced me to make the tube *angular* instead of *curved*.



This is the first modification. The length of the first part or "shank" must be varied to suit different necks, as the trachea lies at different depths from the surface.

The angular form of the tube would preclude a rigid internal tube, and I have therefore made part of the inner tube of flat spiral wire so that it will bend at the angle. This is the second modification.

The lower end I have bevelled anteriorly and posteriorly, both to facilitate its introduction and to avoid any pressure against the anterior and posterior wall of the trachea,—this being the third modification.

This inner tube is slightly longer than the outer, to avoid the blocking of the outer by accumulating mucus.

There may or may not be an opening in the shank to facilitate the return of normal breathing as the larynx resumes its normal function.

The instrument has just been made for me by Tiemann, of New York, but I have had no opportunity as yet to test its advantages or disadvantages.

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DISCUSSION.

Dr. Thomas G. Morton: I have never seen ulceration of the trachea from the tube. I have seen ulceration of the skin, but have never had any trouble with the ordinary tube. I think the tube need not go far into the trachea,—just sufficient to enter it. I should not like the tube to enter so far as the one presented to-night would.

Dr. Charles B. Nancrede: Is not the ulceration due to the fact that the tube is left in too long? The rule is now to remove the tube at the end of twenty-four or forty-eight hours, and replace, if necessary, another somewhat different in size or curvature. With reference to the fenestræ, I think that, as a rule, they will be found outside of the trachea. I never use a tube with a fenestra if I can avoid it.

Dr. J. M. Barton: My attention was strongly called to this point with reference to the fenestra in a case of syphilitic stenosis of the vocal cords, with some spasm. On the withdrawal of the tube, the patient required its rapid replacement. I tried to close the end of the tube temporarily and permit her to breathe through the fenestra. This she could not do, and I found that the fenestra did not enter the trachea. With the laryngoscope I was able to see the tube and mark the appropriate place for the opening, and I found that the posterior limit of the fenestra in the tube was about where the anterior limit should have been.

Dr. William Pancoast: I have thought that the introduction and withdrawal of the tubes was a great source of annoyance and irritation, and in my last few operations I have discarded the tube altogether. I think that it is often used when not necessary. I prefer to take out a piece of the trachea and so stitch the opening as to keep it patulous. Unless there is actual narrowing of the trachea itself, I think that there is no necessity of a tube to keep it open.

The President, Dr. D. Hayes Agnew: The object of the tube is not to dilate the trachea, but simply to keep open the orifice made into the trachea. I have never seen any trouble, such as ulceration, follow the use of the tube. While there are still some who prefer to keep the opening patulous by the introduction of sutures or some dilating instrument, yet I think that all will finally come back to the tracheal tube, modified perhaps in the way suggested by Dr. Keen.

Dr. William W. Keen: I think the diameter of this tube will at once show that it cannot act as a dilator of the trachea. One objection to a tube barely long enough to enter the opening is that in the movements of respiration and the muscular movements of the head it may be displaced. The portion of the tube within the trachea should be in its axis, and not present a uniform curve. This curvature brings the lower end of the tube

against the anterior wall of the trachea, and a number of instances are on record where there have been both ulceration and hemorrhage, even of a fatal character. I have made only slight modifications in Parker's suggestion, the principal one being in having the inner tube made of spiral wire so as to overcome the angular difficulty.

It is impossible that the *fenestra* in this tube shall become closed, for it is directly in the axis of the vertical tube.

Dr. O. H. Allis: I am sorry to hear our President say that we shall all come back to the tube. The only case that I ever saved was one in which I dispensed with the tube and inserted little traction-ligatures. Thirty-six hours later I attempted to put in a tube, and nearly killed the child by pushing a little piece of mucus before the tube. The child is, however, no safer without the tube than with it. As much care is required as where the tube is used. There is a tendency for the opening to gum up, and difficulty of breathing ensues. In my case a little chloroform placed over the opening was sufficient to quiet the child until these collections had been removed. The use of little retractors to keep the wound open would, I think, be desirable.

The President, Dr. D. Hayes Agnew: If retractors were kept in for any length of time, there would be the same objection as is urged against the tube: namely, there would be pressure and ulceration.

Dr. Charles B. Nancrede: The operation of tracheotomy is not a simple one. I agree with Billroth when he says that he blames no surgeon for declining to perform tracheotomy in a child. In the first successful case of tracheotomy for diphtheritic croup, no tube was used. A crucial puncture through the trachea was made. That child probably would have recovered without an operation.

Most of the cases on which I operate are for diphtheria, and I should not like to use chloroform, as has been suggested, in that disease. As most of the cases have to be left in incompetent hands, I prefer to insert the tube.

A short time ago I was called to the country to see a case in which the surgeon said he had opened the trachea but had failed to get the tube in. There was great infiltration and swelling from the first wound, which was made above the cricoid cartilage. After considerable dissection, I opened the trachea and introduced the tube. In such a case I think the tube could not have been dispensed with. I believe that more children will die where the tube is not used than where it is employed.

Dr. Thomas G. Morton: I have never operated on a case where I did not use the tube, and in most of the cases that I have operated on the operation had to be done instantly. In a recent case of diphtheria the child was apparently dead when he was carried to the

window. I at once opened the trachea and inserted the tube, and had the father inflate the chest, by which he contracted the disease. Both the boy and the father recovered. There is usually no time to cut out a piece of the trachea. I always remove the tube as soon as possible.

Dr. Samuel Ashurst: We do a number of tracheotomies at the Children's Hospital, and we use the ordinary old-fashioned tube with a guide to facilitate its introduction. I have never seen any necessity for any modification. The trouble does not come from the tube, but usually from the extension of the disease. The introduction of the tube, while it may not save life, gives great relief to the breathing.

Dr. William Pancoast: Some years ago I had the same idea as that mentioned by Dr. Allis, and had made two pieces of silver wire, bent over and secured behind with a strap and buckle, to keep the wound open, but I found that it was irritating and would gum up.

I have considerable doubt whether the operation of tracheotomy is a justifiable one in diphtheritic croup in children. I have seen a great many of these operations, and I have performed a few myself. The patients generally die. Recently I have had two cases in which my opinion with reference to the performance of the operation was asked. I said that I did not believe that the operation was a cure for the disease, but it would give a chance to breathe, and that, if I were requested, I would perform the operation. In both these cases the operation was not performed, and the children recovered. If they had got well after the performance of the operation, the recovery would probably have been attributed to that procedure. The query in my mind is, Would not those cases of diphtheritic croup which recover after tracheotomy have got well if the operation had not been performed?

Dr. Thomas G. Morton: I wish to relate a case in which I adopted a procedure which has been practised, but which I had never employed before. The case was that of a man 73 years of age, with an enormous prostate, so large as to suggest the presence of a tumor. The urine had to be drawn with the catheter on every occasion, giving rise to intense suffering before, during, and after its introduction. Last week I performed the supra-pubic operation. The bladder was exceedingly contracted, never holding more than one ounce of urine. I introduced into the rectum an india-rubber bag, and injected into it twelve ounces of water. I then slowly injected into the bladder eight ounces of water. After making the incision at the lowest part of the abdominal wall, it was with difficulty that I reached the bladder, and I saw it only on one occasion, and that was when I inserted a hook into it. I then with my finger carried down a bistoury, opening the bladder

and draining off the water. I then put in a glass tube, which I removed at the end of forty-eight hours. I cut an ordinary stomach-feeder into sections five inches in length, fitting to one end a glass tube and cork. Since the operation there have been no bad symptoms, and the patient is comparatively comfortable. I do not know that experience has shown any tube better than that which I have used. The distention of the rectum to steady the bladder is described by Sir Henry Thompson. In this case, I think that I could hardly have reached the bladder if it had not been for this measure.

Dr. William Pancoast: I should like to ask the experience of the gentlemen in regard to amputations of the finger through the metacarpo-phalangeal joint: whether they follow the old plan of taking the flap from the palmar surface, and whether they find the cicatrix on the dorsum of the hand painful. I have seen many cases in which the cicatrix has been excessively sensitive. For the past three or four years I have performed a modified operation, reversing the incision, thus leaving the natural covering to the knuckle. The objection to this has been that the scar would be painful; but this is not the case. I have adopted a similar plan in operations through the knee-joint. I make an incision through the skin, a little longer in front than behind, then turn the skin up and cut the muscles off short. The flaps are then brought down, and I have had a beautiful result so far as the operation is concerned.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, THURSDAY, FEBRUARY 4, 1886.

The President, B. F. BAER, M.D., in the chair.

DR. CHARLES MEIGS WILSON read a paper on

CASES OF LACERATION OF THE CERVIX UTERI WITH UNIQUE SYMPTOMS.

The histories of the following cases are brought before the Society in order, first, to record what the writer believes to be unique symptoms of the lesion, and, secondly, to elicit discussion in reference to the reflex nervous symptoms of the lesion, and, if possible, to draw the line of demarcation between them and the nervous phenomena of alienation. But a few years back we were given the doctrine, *ex cathedra*, that lack of contour of the cervix uteri was the principal cause of that train of nervous symptoms of which the histories here cited contain unique examples. Prior to this, the clitoris was supposed to be the source of all the trouble. And, now that spaying has become the fashionable surgical

procedure, the ovaries have been given the precedence in the causation of the grave reflex nervous symptoms attendant upon pathological conditions of the pelvic viscera. Statistics have pretty well proved that, in a large majority of cases, destruction of the natural contour of the cervix has been the starting-point of pelvic distress. The subinvolution, with the subsequent conditions of prolapsus, hyperæmia, hypergenesis of tissue, ectropion of the cervical membrana mucosa, and the inflammation set up by friction of the everted cervical mucous membrane against the posterior vaginal wall (which frequently occurs in neglected cases of laceration of the cervix), are undoubtedly the primary factors of pelvic irritation in many cases; and it is easy to see how this condition may set up pathological conditions of uterus, Fallopian tubes, and ovaries secondarily. To say precisely what is to blame is a very difficult matter. The following cases are selected from a large number operated upon by Dr. E. Wilson in private practice, and by the author in the surgical wards of the Philadelphia Lying-in Hospital.

Case I.—Mrs. McF., æt. 32, married, mother of three children, presented herself at the clinic of the Lying-in Charity with the following symptoms. For the past year she had noticed a tumor about the size of a small foetal head in the right lumbar and the right half of the umbilical region. The tumor was perfectly smooth, non-nodulated, and freely movable in the abdomen. She had had obstinate constipation, a good deal of vesical irritation; at one time had had a sanguineo-purulent discharge from the vagina; this had entirely ceased for the last seven months. She complained of deep-seated, darting pain in the lower part of the abdomen, backache, intense cephalgia, and photophobia. Her last child had been delivered fourteen months previously with instruments. She had been under the care of a prominent gynaecologist, who had diagnosed floating kidney and recommended extirpation. After a careful examination, in which I was aided by several professional friends, the diagnosis previously made was concurred in. A careful chemical and microscopical examination of the urine failed to detect any abnormal constituent. It was then determined that laparotomy for removal of the kidney, or cutting down upon it and stitching in proper place, would be alike unjustifiable. Upon making a more careful examination, including the uterus, the patient was found to have an extensive bilateral laceration of the cervix. The contour of the cervix was restored; and, although the patient still has her floating kidney, all her distressing symptoms have ceased.

Case II.—Mrs. S., æt. 32, married, mother of two children; pelvis slightly contracted antero-posteriorly. Both children were delivered alive by forceps. This patient was sent

me by her regular attendant, with the diagnosis of cancer of the rectum. She suffered greatly from backache and headache, was constipated, passed ribbon stools, and had agonizing pain upon defecation. She had slight vaginal discharge, and a coffee-colored, foul-smelling, muco-purulent discharge from the rectum. Rectal examination revealed an ulcerated surface extending apparently for about an inch and a half in length completely around the rectum, about three inches above the anus. Small portions of the granular surfaces of the tumor revealed, under the microscope, no evidence of malignant growth. Specular examination of the vagina showed extensive bilateral laceration, with acute retroflexion. The woman presented no evidence of cachexia. The uterus, though closely bound down by adhesions, was finally restored to its proper axis. After several weeks the contour of the cervix was reformed. Simple astringent applications were made four or five times to the rectal ulcer. The patient made a complete recovery, and has had no return of symptoms since the operation.

Case III.—Mrs. C., æt. 22, mother of one child, with history of tedious instrumental labor. This patient suffered from violent ovarian neuralgia, augmented at the catamenial periods. She had a profuse leucorrhœa, engorged uterus, and enlargement of the right ovary. She also suffered at times from suicidal dementia, which was sometimes so violent that she required restraint. Her case had been diagnosed pyosalpinx, and oophorectomy advised. Examination revealed an extensive bilateral laceration of the cervix, extending on the left side to the vaginal junction. The cervix was restored, with complete cessation of all symptoms. Examination six months after the operation failed to find tenderness or enlargement of the right ovary.

Case IV.—Mrs. S., æt. 37, married, mother of five children. This patient had been incarcerated in a private asylum for fourteen months, suffering with violent dementia. She had the typical appearance of alienation. No clear history could be obtained of her symptoms, except that she had distressing pelvic pain and profuse leucorrhœa. Examination showed extensive laceration of the cervix. Trachelorrhaphy was performed, with immediate amelioration of the symptoms. Two months after the operation she was restored to her family completely well. A year or more has elapsed since the operation in each of the cases, and the relief afforded has thus far been permanent. These cases appear to the author to have had unique symptoms following and consequent upon the lesion, though doubtless those with more extended chances of observation have met with cases presenting analogous symptoms.

Dr. JOSEPH PRICE made some remarks

upon the effects of cicatricial tissue in the edges and at the apex of the laceration, and the effect of the laceration in inducing local engorgement and hypertrophy, and thus a long series of consequential symptoms. He spoke of the value of rest and local treatment for the relief of these symptoms; but the relief so obtained is temporary. It will last but a few months, and sooner or later, after the patient is discharged as cured, the same symptoms recur. If the cicatricial tissue is not all removed and complete union secured throughout the entire thickness of the cervical tissue, the symptoms will return or even be aggravated by the operation. In his experience, conception results after operation in young women.

Dr. HOWARD A. KELLY remarked that he was glad to hear of the good results in Dr. Wilson's cases, as a year or more had elapsed. He thought cases of laceration of the cervix might be arranged in three classes. 1st. When the cervix, although lacerated, remains soft and flaccid, there will be no consequent symptoms. 2d. When cicatricial tissue is developed or ectropion is present, marked reflex symptoms will ensue. 3d. When there has been natural repair, but with inclusion or formation of hard or scar tissue, there will also be marked reflex symptoms. To this latter class belong those cases, with hypertrophied glands and everted lips, of so-called erosion. These second and third classes must be relieved by rest and local treatment, and then operated upon to keep them well. Complete removal of the hard tissue and perfect union of the coapted edges must be secured. Failure in either of these points will cause a return of the symptoms.

Dr. BAER remarked that the symptoms were not due to the laceration, but to its inflammatory consequences. To secure a good result the inflammatory condition must first be subdued, and then the operation of closing the laceration will be in order. It may take a long course of treatment to secure this necessary condition, but operation will probably fail to secure the desired relief without the preparatory treatment. He has found in some of these unsuccessful cases union of the external surface only, and in others fistulous tracts between the suture-points. Cicatricial tissue seems to be sometimes formed after operation when union occurs by granulation. Simple laceration without ectropion is very rare, and he would advise repair of the laceration in all cases, to prevent future resultant inflammatory conditions. It is desirable to have union by first intention, to avoid formation of cicatricial tissue and suture-track fistules.

Dr. WILSON spoke of the choice of method in preparatory treatment. Local treatment once a week will often fail to have a good effect, when a week or ten days in bed, with

douches of hot water and glycerole of tannin on pledgets of cotton applied daily, will accomplish rapid relief of the local condition. Great care should be exercised in the removal of tissue, as complete closure of the cervical canal may happen. He has seen two such cases which were detected at the next menstrual periods after the operation. The passage of a spear-pointed probe gave vent to dark grumous material.

Dr. HOWARD A. KELLY exhibited a specimen of

Hæmatoma of the Ovary, with Adherent Fallopian Tube.

This specimen is an example of a class of cases which stand peculiarly by themselves: cases of aggravated tubal and ovarian disease, on a small scale as compared with ovarian cyst, and yet in which there is enough change in the size and consistency in one or more of the structures of the appendages to afford most satisfactory ground for diagnostic precision under skilled bimanual examination. These cases occupy a middle ground between the larger tumors, where disease is so palpable, and those hap-hazard attempts, the present reproach of gynaecological surgery, in which the operation upon appendical structures is undertaken to relieve a *symptom*, and the diagnosis of pathological ovarian or tubal change is made after removal or not at all.

This is the right ovary of a patient 21 years of age. It is about the size and shape of a large Spanish chestnut. I was able to handle it freely by bimanual examination, and determined exactly its size, shape, consistence, and relations before operating. The indications for operative interference after I had made my diagnosis were greater than in the case of any large ovarian cyst I have ever seen, and the prospects and result of any form of palliation were futile. Almost the whole of this large ovary is filled with a blood-clot, soft and jelly-like in part, and in part firm, fibrous, and apparently intimately united to the ovarian stroma. This clot is surrounded by a shell of apparently normal ovarian tissue, throughout which are seen a number of follicles and old corpora lutea. A remarkable feature is the way in which the fimbriated extremity of the tube is spread out like a sucker over the surface of the ovary and glued fast by adhesions, so that the line of demarcation between tube and ovary is but faintly indicated. From the line of junction numerous vessels course in a radiating manner down over the ovary. The left ovary is below normal size, but contains many pea-sized black clots.

The second specimens which I now exhibit were removed this afternoon. The case is an example of the third class, in which the operator has nothing but a symptom to guide him. My patient, 35 years of age, suffered

from an increasing menorrhagia for fourteen years. Lately she has been bleeding half the time. She has had recourse to every possible plan of treatment, with but slight and temporary relief. The only thing I could do was to perform oophorectomy and stop her menstruation. One ovary weighs one hundred and thirty-nine grains, the other one hundred and three grains. A beautiful corpus luteum of menstruation, about two and a half weeks old, shows that the hemorrhages, which retained all along a menstrual periodicity, were in reality menstrual. The tubes are free from disease. In one ovary a globular pellucid cyst lies between the layers of the broad ligament, in close proximity to the fimbriæ, the tubo-ovarian ligament being spread out over its surface.

Dr. WILSON called attention to the fact that in the first specimen the tube had been occluded by a torsion or twist upon itself.

Dr. BAER remarked that it would be interesting to know the results in Dr. Kelly's last case. In such a case there is of necessity a cause for the hemorrhage; there is no apparent diseased condition of ovary or tubes sufficient to account for it. Hemorrhages from the uterus are often associated with vegetations upon its lining surface; but these are not always present. He alluded to one case in which hemorrhage continued to be profuse after the removal of the tubes and ovaries, which had been very much diseased.

Dr. PRICE remarked that in this last instance the continued hemorrhage might be the result of body-habit, although the original cause might be removed.

Dr. HARRIS spoke of a case of fibroid tumor of the uterus with menorrhagia in which removal of the tubes and ovaries gave complete relief.

Dr. KELLY had, eight months ago, removed both ovaries and tubes, and the menorrhagia still continues. In the case operated upon to-day the curette had been used, but no vegetations had been found. A strong tincture of iodine applied thoroughly to the inside of the uterus and vaginal packing would quickly stop the hemorrhage for the time; but it would soon recur. Operation was performed to relieve the symptom hemorrhage, by bringing on the menopause, and not because the ovaries were supposed to be diseased.

Dr. J. PRICE exhibited specimens from a case of

PYOSALPINX.

The tube was large as the finger and cheesy in consistence, and was easily broken, even by the bite of the haemostatic forceps. The patient was in a typhoid condition, with high evening temperature, emaciation, quick pulse, and pain in locomotion. There certainly had been leakage of pus before, but two ounces escaped at the time of removal. Adhesions were numerous, but were cheesy and broke down readily. After the operation there was

rapid subsidence of the pulse and temperature, with the other symptoms. Free washings of the abdominal cavity through a drainage-tube were practised for a few days. There was a clear history of gonorrhœa. The other tube and ovary were not enlarged.

Dr. BEATES remarked that in one case upon which he had operated repeated attacks of peritonitis had caused large deposits of flaky lymph in Douglas's cul-de-sac. These were nicely removed by sponging.

Dr. BAER raised the question of the gonorrhœal origin of the salpingitis in Dr. Price's case, which was unilateral, while gonorrhœa usually causes both tubes to become diseased.

Dr. PRICE stated that Dr. Tait's new book reported a gonorrhœal case of unilateral salpingitis. Comparison with the male analogue epididymitis, which is usually unilateral, would support the idea of such an origin. A free leakage of secretion from the tube and absence of constriction may prevent the accumulation of pus on one side.

Dr. BEATES exhibited specimens from a case of

DIFFUSED SARCOMA UTERI, WITH METASTASIS TO LIVER AND LUNGS.

The patient from whom the specimens were obtained was in excellent health until the development of this affection, at 59. Catamenia established during her sixteenth year without undue disturbance. She has had four children, and no miscarriages or pelvic disease during her sexual life. There is no evidence of heredity towards myoplastic disease. Menopause at age of forty-eight, without incident. About five years later a hemorrhage occurred, lasting a few days. It recurred with decided regularity, and the patient, believing it to be menstrual, did not have recourse to treatment until an intermenstrual sero-sanguinolent discharge appeared. Later this assumed a purulent type, and was accompanied by constant pain. The condition was now regarded as carcinomatous. In June, 1885, I found the patient emaciated, cachectic, and weak. Digestion was impaired and the stomach irritable. Local pain was intense, with nocturnal exacerbations. There was also incontinence of urine, and its consequent intertrigo. The vagina was so occluded with numerous neoplasms, varying in size from mere nodules to the size of an olive, that an examination of the uterus was impracticable. Some of these were pedunculated. There was an offensive ichorous discharge; bleeding occurred upon the slightest touch. The history was one of progressive asthenia.

The autopsy, by Dr. Formad, disclosed the pulmonary apices and inferior posterior margins to be the seats of nodular masses. The surface of the left hepatic lobe was the seat of two deposits which simulated encephaloid carcinoma. The lymphatic glands were per-

fectly normal. The uterus was enlarged about one-fourth, and its attenuated walls were easily torn; upon opening it was found to be almost entirely destroyed by ulcerative processes, which were most marked near the fundus. The cavity of the pelvis was occupied by the morbid mass, and the vagina was entirely destroyed. The bladder was not involved, but the urethra was sloughed through; rectum free. The microscope showed a small-cell sarcoma. The pathological laws of which this is an illustration possess especial interest regarding treatment. It is now well known that neoplasms originating in areas that have developed from either the epi-, meso-, or hypoblast possess certain specific life-histories, and, while all may closely resemble one another in their incipiency, differ widely not only in their course, but ultimate results, as they continue to exist. Thus, epithelioma of epiblastic structures is local and not subject to metastasis, while the hypoblastic epithelioma are pre-eminently metastatic. Mesoblastic neoplasms are of connective-tissue type and in large-cell forms, local, while in small-cell varieties metastatic. Epitheliomata undergo metastasis through the lymph-channels; sarcoma, by means of the blood-vessels. Either of these diseases when first becoming active, there is good reason to believe, is local, and before retrograde changes occur can by total removal of the organ involved be radically cured. As sarcoma, and especially its small-cell variety, is especially prone to metastasis, its early recognition is a matter of paramount importance. In this case its early evidence was mistaken for carcinoma, and from a clinical stand-point alone such an error is unavoidable, but, as the discharges contain portions of the neoplasm readily recognized by the microscope at a time when metastasis has not occurred, its diagnosis and treatment are a matter of simplicity. The later symptoms, absence of lymphatic involvement, and comparatively slow course, enable one to know that he is palliating the sufferings of a sarcoma.

W. H. H. GITHENS, M.D.,
Secretary.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held March 4, 1886, the President, A. JACOBI, M.D., in the chair.

LIMITATIONS IN THE VALUE OF GLASSES FOR THE IMPROVEMENT OF VISION AND THE RELIEF OF DISEASE.

Dr. D. B. ST. JOHN ROOSA read the paper, in which he first reviewed the invention of test-types,—Snellen's and others,—and passed to the consideration of the eye-diseases which occurred most commonly in public and private practice. Statistics taken from the records of an institution in Brooklyn and one in

New York showed that a very large percentage of all cases consisted of lesions of refraction or accommodation. Nowadays many cases of headache were sent to the ophthalmologist to determine whether the disease was not due to a lesion of refraction or accommodation. Dr. Roosa related a case which illustrated his view that in many instances an imperfection in vision was only a limited or temporary factor in the production of a neurosis. Too much stress should not be laid upon the possible value of correction of a lesion of refraction or accommodation in relieving a neurosis. Many persons, he believed, had got along without glasses, although their vision was not normal, and never suffered from a neurosis or reflex difficulty which could be traced to the eyes. Neuralgia, chorea, insomnia, epilepsy, were among the diseases which it had been claimed might be caused by difficulty in performing the function of sight.

Dr. Roosa quoted freely from Donders, and said he was not at all sure but what that gentleman had conferred as material a blessing upon the human race, in teaching us the full use of convex and cylindrical glasses, as had been conferred by any one man.

The author then read the histories of a number of cases taken from his case-book in illustration of the text of his paper. In one case the use of convex glasses gave relief from pain in the back part of the eye; in another, convex glasses gave relief from the habit of winking; in another, glasses relieved headache; but in others still, glasses failed to relieve headache, and Dr. Roosa thought the practitioner who hoped to cure this malady by the use of glasses would be disappointed in cases in which there was not marked deviation from normal visual power. He made the comment in one case that it was not the only one in which he found that a combination of prisms with correcting-glasses did not seem to do as well as glasses without prisms. In another case, one of hypermetropia with a considerable degree of opacity of the lens, no relief was obtained from glasses. The case was of some interest to ophthalmologists as going to show that there might be spasm of the ciliary muscle when one part of this ring of muscular tissue was more involved than the other. Another case was that of dizziness and double vision in a young boy, who obtained nearly complete relief by the use of glasses. Another case, of "unsteady head," was relieved by wearing glasses. In case fourteen there was asthenopia in a nervous man, who obtained considerable but not complete relief by wearing prisms.

Dr. Roosa also gave examples of neuroses in which it was impossible to obtain relief by treatment directed to the eye. He could not, he said, expect from glasses all that had been claimed by some authorities on the one hand, while on the other he feared that, even

after all these years which had elapsed since the publication of Donders's work the whole profession was not fully alive to the value of glasses in the relief of symptoms, especially those referred to the head and eyes.

"Uterine asthenopia" he had never been able to alleviate by treatment directed to the eyes. In neurotic subjects the pains were very apt to fly to another part of the body, and cures in these cases depended as much upon the mental characteristics of the attending physician as upon those of the patient. That glasses would cure organic disease in parts remote from the head, Dr. Roosa was not yet prepared to believe. Errors of refraction and accommodation sometimes caused serious functional disturbances beyond those of vision. But, again, hypermetropes might live to become presbyopes without having asthenopia. Some myopes went through life without optic symptoms. Our imperfect knowledge as yet did not enable us to say what were all the factors in a given case of disease, and a narrow specialism would never find any comfort in the study of the woes of the human body.

Dr. DAVID WEBSTER agreed with all that Dr. Roosa had said, and thought he had given a faithful picture of the ophthalmologist's every-day work.

He thought the number of cases of errors of refraction, of troubles of accommodation, and asthenopia exceeded that of any other class of cases. The fact was that not more than six out of a hundred persons had normal vision; but the proportion of these requiring the assistance of the ophthalmologist was small. But why some should require treatment and others not was difficult to answer. Perhaps the majority of cases requiring treatment had some fault with the general health. If anything occurred to depreciate the system, the eyes would probably be weakened at the same time. He believed, with the author, that there was a limitation to the value of spectacles in these cases. But with regard to the limitations of reflex neuroses caused by eye-strain he did not feel assured. He had seen very many cases of headache, dizziness, vertigo, nausea, cured by a proper adjustment of glasses, or by division of the muscle which was too strong for its fellow. He had also seen spasm of the orbicularis palpebrarum relieved entirely by the use of atropia, followed by glasses. He did not know but that other functional disturbances of the nervous system might be caused by eye-strain and be cured by treatment directed to the eyes, but he did not believe that organic uterine disease, or rectal disease, lung-disease, etc., could be cured by such treatment. He had seen some cases in which very marked results followed the use of prisms, even prisms of very low degree. Dr. Webster then related some exemplary cases.

He made it a rule not to order glasses

which were uncomfortable to the patient while in his office, otherwise he would be likely to cast them aside. He had in quite a number of cases used the faradic current about the eyes in conjunction with glasses for the relief of asthenopia, and he thought the benefit derived from it was such as to justify its more common employment.

Dr. CHARLES S. BULL thought all would agree with what had been said by Dr. Roosa. He believed that of late years, and especially in this city, too much importance had been attached to eye-diseases as the cause of reflex troubles.

Dr. EMIL GRUENING said that one kind of glasses which he had often prescribed had not been mentioned by the author,—namely, window-glasses: that over one eye being left clear, the other being ground in a manner to shut off vision from that eye, but being apparently clear to a second person. The advantage of such glasses was observed in cases of diplopia which caused nausea and dizziness. By cutting off the sight of one eye double vision was cured, and with it nausea and dizziness ceased.

Dr. R. W. AMIDON said that neurologists had been convinced for some time of the advantages of glasses in certain cases of reflex neuroses. He agreed in general with Dr. Roosa, but he would perhaps limit the application of glasses in cases of reflex neuroses even more strictly than the author. His experience had taught him that frontal headache had come more frequently from errors of refraction, while posterior headache came more often from inefficiency of the ocular muscles. As to the influence of the general health in the causation of asthenopia, he had been forcibly impressed with its importance, and had generally given patients tonics for the improvement of their health. If after a course of tonics their asthenopia continued, he tried the influence of glasses. Patients often asked whether they would ever be able to discard glasses should they once begin their use, and in some instances he felt warranted in telling them that it was probable they could do so after measures had been employed for strengthening the general system. Not as much stress had been laid upon the injurious effects of insufficiency of the external muscles of the eyes, particularly in neurotic women, as he would do. Dr. Amidon had seen wonderful results from the constant or temporary use of prisms.

Dr. ROOSA said that the ophthalmologists of this city had been accused both by neurologists and other ophthalmologists of not fully appreciating the value of glasses, but he contended that they were not behind the times, and that they were in advance of neurologists in this direction, with a few marked exceptions.

The PRESIDENT thought the discussion showed that neither neurologists nor ophthal-

mologists looked upon the eye as the whole, but only as a part, of the body.

Dr. GRUENING was unable to conceive how prisms could be of benefit.

EXHIBITION OF A NEW ELECTRIC LIGHT.

Dr. H. G. PIFFARD presented an electric battery of fair constancy. It would throw a light of from four to six candle-power for an hour. The cheapness of the instrument, its small size, and its fair constancy made it preferable to others which he had seen, and it was particularly valuable in surgery and examinations at night.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held February 24, 1886, the President, JOHN A. WYETH, M.D., in the chair.

THE RELATION OF CANCER OF THE LIVER AND GALLSTONES.

DR. NEWCOMB presented the liver removed from the body of a German, who entered the hospital with an enlarged liver, ascites, and symptoms which led to his death nine days after admission. He was tapped once, and two hundred ounces of fluid withdrawn from the abdominal cavity. The patient denied syphilis, but his condition was such that little reliance could be placed upon his statements. He was addicted to alcohol. The chief interest at the autopsy was found in the liver. The organ contained large and small cancerous nodules; the cystic duct was occluded by a gallstone of the size of a hazelnut, and probably as many as four hundred small gallstones occupied the gall-bladder.

Dr. Newcomb said that it was now generally admitted that gallstones and carcinoma of the liver occurred not infrequently together, and the question of possible causative relation between the two was an interesting one. It was not known whether the carcinomatous disease of the liver so interfered with the bile-secretion as to cause it to become thickened and so altered as to form the nucleus for stones; or whether gallstones might not excite an inflammation in the gall-bladder and surrounding liver-tissue, which latter underwent a carcinomatous change.

This case in which ascitic fluid continued to escape through the puncture reminded him of another in which the trocar and canula were introduced, fluid withdrawn, and subsequently on attempting to introduce the trocar at the same place it struck something hard, and, with a fair degree of force, refused to enter. The hypodermic needle penetrated, and fluid was withdrawn with it. He thought it probable that an inflammation had been set up by the first puncture,

which led to cicatrization, hence the board-like object struck by the trocar.

The PRESIDENT had used a certain trocar and canula in numerous instances, and the instrument had never failed until he once tried to puncture the scrotum to withdraw fluid from the tunica vaginalis. Several forcible attempts failed to cause the instrument to enter, and on examination it was found that the edge of the canula had been dulled, probably by falling on marble from the hands of the nurse who cleaned the instrument. Possibly such would have been found to be the explanation of the difficulty met with by Dr. Newcomb.

Dr. CARPENTER thought that since cancerous nodules were not present in other organs, and inasmuch as syphilis had not been positively excluded, it would be well to examine Dr. Newcomb's specimen microscopically, for primary carcinoma was regarded as a rare affection. He had seen, however, the statement attributed to Dr. Pepper that carcinoma of the liver was nearly always a primary affection. The statement was an extraordinary one, and he was disposed to think Dr. Pepper had been incorrectly reported.

Drs. J. C. PETERS, FRANK FERGUSON, and the President testified to the rare occurrence of carcinoma of the liver as a primary affection.

Dr. JOHN C. PETERS read a memoir of the late Dr. Alfred C. Post, reviewing particularly the work done in the Pathological Society during his presidency in 1861.

CARCINOMATOUS STRICTURE OF THE RECTUM, WITH GREAT DISTENTION OF THE GUT.

Dr. FERGUSON presented the rectum and intestines of a man who died aged 54 years. He was admitted to the service of Dr. Peabody, in New York Hospital, December 1, 1885, with a history of piles, bloody passages, and diarrhoea. His father had died of cancer of the rectum. In February there was very marked tympanites, frequent vomiting, and great pain. Carcinomatous stricture of the rectum at two points was recognized, and at the autopsy the opening was found with difficulty, and was not more than one-eighth of an inch in diameter. The intestines were greatly distended. The left lobe of the liver was filled with carcinomatous material of the encephaloid rather than the scirrhus variety.

CARCINOMA OF THE STOMACH, LIVER, AND PERITONEUM.

Dr. FERGUSON also presented the stomach, liver, and intestines of a woman who died aged 35. The case was interesting taken in connection with the history. The patient was admitted to the New York Hospital, service of Dr. Peabody, February 20, 1886. She considered herself well five weeks previous to

admission, which was one week after the birth of her last child. Her appetite then became poor; she had pains in the stomach, which were relieved by the administration of opium only; she occasionally vomited. It was not until the 10th of February that she felt obliged to keep her bed. At this time she had a chill, followed by fever and sweating. Since the 10th of February her abdomen increased rapidly in size, she had dyspnoea, diarrhoea, the movements being preceded by pain, which disappeared after the passage. The liver was enlarged, nodular; there were present ascites, slight anasarca, and cachexia. Dr. Ferguson made a diagnosis of cancer of the liver, and got himself into difficulty by unguardedly announcing the nature of the trouble to the patient's friends, for she had been seen by three other physicians who had made different diagnoses. Death took place on the 21st of February, and the autopsy revealed a very thick cancerous mass in the stomach, involving all of the coats. The disease doubtless had started from this point. The omentum and entire peritoneum were infiltrated with nodules; likewise the diaphragm. The liver was enlarged, and studded with nodules of large and small size. An interesting point was the fact that the very rapid development of ascites had been attributed during life to narrowing of the portal vein from surrounding carcinomatous tissue. The autopsy revealed such narrowing. The spleen had also been recognized as small, and this was explained at the autopsy by constriction of the splenic artery from the presence of carcinomatous tissue. Dr. Ferguson said that whenever he found cancer involving a mucous membrane he regarded that as the primary seat of the disease. Primary cancer of the omentum was rare.

Dr. CARPENTER had seen one case of supposed primary cancer of the omentum. There was one nodule on the surface of the liver, at the point where the omentum lay in contact with the liver, and the hepatic nodule was considered secondary, due to contact.

REVIEWS AND BOOK NOTICES.

A DOCTOR'S EXPERIENCES IN THREE CONTINENTS. By EDWARD WARREN, M.D., C.M., LL.D., Bey by Khedival Firman, etc. In a Series of Letters addressed to John Morris, M.D., of Baltimore, Maryland. Baltimore, Cushing & Bailey, 1885.

Autobiography owes its peculiar charm to the natural interest which we feel when the subject, himself prominent, has held intimate relations with the leading characters of his time, or has played an important rôle in the working out of great social or moral problems, or has been subject to peculiar and extraordinary vicissi-

tudes of fortune. In the life of Dr. Warren these elements are combined in a remarkable manner. A republican, he graces a court and saves the life of a queen; an American soldier, he is decorated for services by the Khedive; a physician and a man of peaceful inclinations, he becomes a warrior by force of circumstances, and an enthusiastic defender of the code. The style of the narrative is varied and somewhat discursive, but nevertheless entertaining and extremely interesting. At the wane of a life full of experience acquired under the most diverse circumstances and in different parts of the globe, his philosophy finds appropriate expression in the following sentence (page 30):

"I have travelled far, and seen much, and suffered greatly, but the longer I live and the more comprehensive my experience becomes, the greater is my faith in religion, and the stronger is my conviction of its necessity alike for the happiness of the individual, the stability of society, and the welfare of the world."

While a student of medicine in Philadelphia, Dr. Warren conceived the idea of hypodermic medication, and even carried it into practice.

DISEASES OF THE LUNGS (OF A SPECIFIC, NOT TUBERCULOUS, NATURE): ACUTE BRONCHITIS, INFECTIOUS PNEUMONIA, GANGRENE, SYPHILIS, CANCER, AND HYDATID OF THE LUNGS. By PROFESSOR GERMAIN SÉE. Translated by E. P. HURD, M.D. With Appendices by GEORGE M. STERNBERG, M.D., and PROFESSOR DUJARDIN-BEAUMETZ, M.D.

The November issue of Wood's Medical Library is devoted to the consideration of a group of diseases which are at present attracting much attention. Professor Séé is known as an earnest advocate of the parasitic doctrine of the etiology of many acute diseases, and it is upon microbiotic etiology that he has laid the foundations of his nosology, and to some extent the same data are applied to the question of treatment. We feel certain that this work should be read particularly by the opponents of the recent doctrines in pathology, in order to keep themselves informed of the present status of the discussion. No intelligent physician can read its pages without interest or fail to receive information from them.

EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES: THEIR CAUSES, SYMPTOMS, AND TREATMENT. By W. R. GOWERS, M.D.

DIAGNOSIS OF DISEASES OF THE BRAIN AND OF THE SPINAL CORD. By W. R. GOWERS, M.D.

These two volumes form the September and December issues of Wood's Medical Library, and are a fair sample of the quality of the Library for the past year. By their successful efforts in popularizing among the American medical profession the productions of standard authors, the publishers have contributed ma-

terially to the important work of elevating the standard of medical thought and practice in this country. Gowers on Epilepsy needs no extended notice: it has been before the profession for some time, and has been highly esteemed. Gowers on Diseases of the Brain and Spinal Cord is a new work: it is in the form of lectures, very much as they were delivered at the University College Hospital, and has been published in response to the request of many readers of his former work on Diseases of the Spinal Cord. The familiarity of the lecturer with his subject, and the freedom of style permitted by the lecture-form, render his last work one that will be as well received by the profession as the first. The text is illustrated by numerous diagrams. The greater portion of the book—eighteen lectures—is devoted to cerebral affections, the remaining six lectures being occupied with diseases of the spinal cord: in each occasional references to clinical cases add interest to the discussion.

NEW REMEDIES AND CLINICAL NOTES.

HYDRASTIS CANADENSIS IN METRORRHAGIA.—Dr. A. J. Akuloff, of Wilna, details (*Proceedings of the Wilna Medical Society*, No. 9, 1885, p. 6) the case of a married woman, aged 42, who had been for nine years suffering from profuse flooding occurring every two weeks. Treatment by intra-uterine injections of perchloride of iron and subcutaneous injections of ergotin had wrought no improvement. On examination, there were found dilatation of the cervical canal, enlargement, hardness, and impaired mobility, of the womb, considerable distention of the cervical veins, and numerous easily-bleeding erosions scattered over the whole mucous membrane of the cervix. Fluid extract of hydrastis Canadensis, in doses of twenty minims three times daily, was given for about three months. The first catamenia were yet profuse, lasting about ten days, but subsequently they returned only once a month and lasted each time three days, the amount of blood being moderate. A decrease in the bulk of the womb was also noted at the end of three months' treatment.—*London Medical Record*.

URETHAN AS A HYPNOTIC IN CARDIAC DISEASE.—In the *Lancet*, December, 1885, p. 1167, Dr. Robert Saundby writes that he has treated two cases of cardiac insomnia by two-grain doses of urethan, given at bedtime, in solution in water. One patient suffered from aortic and mitral incompetence, with congestion of the lungs, haemoptysis, pleural effusion, and oedema of the legs. Urethan has for its formula $\text{NH}_2\text{CO}_2\text{C}_2\text{H}_5$.

and is described by Kober. It was first used medically by Von Jakob, of Vienna. He experimented with it on animals, and found that no toxic effect occurred even when the drug was administered in the proportion of .5 gramme for each kilogramme of the animal's weight.—*London Medical Record*.

CHLOROPEPTONATE OF IRON.—The *Bulletin Général de Thérapeutique* describes Dr. Jaillet's experiments which have led him to prescribe and recommend the use of chloropeptonate of iron. He injected ten grammes of this salt into the veins of a bitch weighing twenty-one pounds. There was neither coagulation nor embolus. Two hours after the injection was made, sixty cubic centimetres of blood were removed from the femoral artery, half of which was allowed to coagulate in order to analyze the serum; the other half was defibrinated. The dog remained alive more than two months after the experiment. The serum contained chloropeptonate of iron. The blood-corpuses, examined under the microscope, were found to be perfectly normal. Dr. Jaillet has experimentally ascertained, by hypodermic, rectal, and intravenous injection, and by ingestion, that chloropeptonate of iron enters the circulatory system and is absorbed into the blood. Chloropeptonate of iron is a chemical combination of peptone and iron perchloride, which does not undergo any change from the gastric juice, nor from the alkalies of the blood. It is absorbed and assimilated just as it is administered, and produces, in consequence, a higher temperature, increased disassimilation, and more copious excretions. The appetite increases, and the patient grows thinner, but the physiological qualities of the blood improve.—*British Medical Journal*.

MISCELLANY.

TO THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.—The rates given to the Delegates to the American Medical Association meeting, May 4, in St. Louis, have been fixed by the different Railroad Committees of the country at one and one-third fares for the round trip. Delegates must pay full fare coming, and will receive, on application, from the agent at the starting-point a certificate, which, when signed by the Chairman of the Local Committee of Arrangements, will entitle them to the reduced return-rate.

No reduced return-ticket will be issued unless the purchaser can show a certificate issued by the agent from whom he purchased the going ticket, and signed by the Chairman of the Committee of Arrangements.

LE GRAND ATWOOD,
Chairman Committee of Arrangements.

THE CARTWRIGHT LECTURES of the Alumni Association of the College of Physicians and

Surgeons of New York (fifth course) will be delivered by William Osler, M.D., Professor of Clinical Medicine at the University of Pennsylvania (Gulstonian Lecturer, London, 1885), at the hall of the Young Men's Christian Association, corner of Twenty-third Street and Fourth Avenue, at 8 P.M., as follows: General subject: Certain Problems in the Physiology of the Blood.

Tuesday, March 23: The so-called Third Corpuscle; the Blood-plate of Bizzozero: the Hæmatoblast of Hayem.

Saturday, March 27: Degeneration and Regeneration of the Corpuscles.

Tuesday, March 30: The Relation of the Corpuscles to the Process of Coagulation.

DRAINING, SEWERING, AND PAVING OF NEW ORLEANS.—On the 1st instant, representatives from the Board of Health, the New Orleans Auxiliary Sanitary Association, the New Orleans Medical and Surgical Association, the Orleans Parish Medical Society, the Chamber of Commerce, and other city organizations, met at New Orleans and instituted a Board of Public Works. The new Association is intended to be limited to fifty members free from political affiliations: it is called the New Orleans Draining and Paving Association, and is designed to be a permanent organization. The advantages that will accrue to New Orleans from the successful accomplishment of the objects of the organization will be beyond calculation, as the necessity of grading and paving that city is evident from a commercial as well as from a sanitary stand-point; and it is hoped that their application to the owners of property for funds to carry on the work will be promptly granted.

THE NEUROLOGICAL REVIEW.—It is with pleasure that we note that Professor J. S. Jewell, of Chicago, has so nearly regained his health that he has issued the prospectus of a new monthly journal to be devoted to diseases of the nervous system, under the title of "The Neurological Review." The contents will consist of original and selected articles, editorials, reviews, and a bibliography of current publications in this department of medicine. The former readers of the *Journal of Nervous and Mental Disease* will be glad to know that Dr. H. M. Bannister will be associated editorially with Dr. Jewell in the new enterprise, as he was in the older journal.

THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE will hold its Fifty-third Annual Meeting in Memphis, commencing Tuesday, April 6, 1886. Thomas L. Madden, M.D., of Nashville, is President, and C. C. Fite, M.D., of Knoxville, Secretary of the Society. A very successful meeting is expected.

Dr. G. BETTON MASSEY has removed to 1706 Walnut Street.

NOTES AND QUERIES.

OBITUARY.

AUSTIN FLINT, M.D., LL.D.—Professor Austin Flint died of cerebral apoplexy, at his home in New York City, on the 13th instant. He had attended a meeting of the Faculty of Bellevue Medical College on the preceding afternoon, and appeared, on his return to his home, to be in his usual health, though fatigued by the duties of the day. At midnight, a few moments after he had gone to his room, a cry was heard, and he was found lying across his bed unconscious, and in this condition he remained until his death, which occurred at 2 P.M. on Saturday.

Professor Flint came of a medical line, his father, grandfather, and great-grandfather having been physicians of distinction in their day. He was born at Petersham, Massachusetts, on October 20, 1812. His collegiate studies at Amherst and Harvard were followed by a full course in the Medical Department of Harvard, from which he was graduated in 1833. From the beginning of his career he made himself known both by his success as a practitioner and by his contributions to medical periodicals. The first three years of his professional life were passed at Northampton and Boston. In 1836 he went to Buffalo, where he remained until 1844, his prominence at that time securing him a call to the chair of Institutes and Practice of Medicine in the Rush Medical College, Chicago. At the close of the year he returned to Buffalo, where he established the *Buffalo Medical Journal* in 1846, which he conducted for ten years. Meanwhile he was increasing his usefulness in various directions. He was one of the three founders, in 1847, of the Buffalo Medical College, in which until 1852 he occupied the chair of Practice of Medicine and Clinical Medicine. Then he went to the University of Louisville, where he remained as Professor of Theory and Practice until 1856, when he went back to Buffalo as Professor of Pathology and Clinical Medicine. While still holding a residence at Buffalo, he passed the winters of 1858, 1859, and 1860 in New Orleans, where he was Professor of Clinical Medicine in the Medical School, and was also Visiting Physician to the Charity Hospital. He changed his home towards the close of this period to New York, which he made his permanent residence afterwards. In 1861 he became one of the physicians to Bellevue Hospital and was appointed to two professorships,—of the Principles and Practice of Medicine and Clinical Medicine in Bellevue Hospital Medical College, and of Pathology and Practical Medicine in the Long Island College Hospital. He remained with the Bellevue faculty, but his duties forced him to sever his connection with the Brooklyn College in 1868. As an author and successful teacher, Dr. Flint did much for the profession. His "Treatise upon the Principles and Practice of Medicine," published in 1866, has gone through five editions. He also published a systematic work on Clinical Medicine, which appeared in 1879.

Among his other contributions to medical science which are noteworthy were his "Reports upon Continued Fever, Chronic Pleurisy, and Dysentery," his "Practical Treatise upon the Pathology, Diagnosis, and Treatment of Diseases of the Heart;" his celebrated essays on "Variation in Pitch and Percussion of Respiratory Sounds," and "A Study of Heart-Sounds in Health and Disease," which received prizes at the meetings of the American Medical Association in 1852 and 1859. His "Manual of Auscultation and Percussion" was published in 1876, and he only recently prepared a fourth edition. He also wrote "A Practical Treatise on the Diagnosis and Treatment of Diseases of the Heart," "A Practical Treatise on the Physical Exploration of the Chest" (of each of which a second edition was soon called for), a series of clinical lectures on "Phthisis, its Morbid Anatomy, Etiology, etc., and "The Physical Exploration of the Lungs by Means of Auscultation and Percussion;" and medical essays from his pen appeared in quick succession.

Dr. Flint always filled a prominent position in the profession, and was elected President of the New York Academy of Medicine in 1872, and in 1876 was a delegate to the International Medical Congress held in Philadelphia. He was active in the organization and was warmly interested in the welfare of the American Medical Association, and in 1883 was elected to its highest office, and at the meeting at Washington, D.C., he accordingly officiated as President of the Association. It was in consequence of a recommendation contained in his address that an invitation was extended to the International Medical Congress to hold its next meeting in this country in 1887. Dr. Flint received the well-merited compliment of being nominated by both the first and the subsequent committee of arrangements for the Presidency of the Congress.

Few American physicians have been so widely known, and very few have been able to exert so extensive an influ-

ence upon the profession, or employed great powers so decidedly for the welfare of their fellows. Of him it might be said, "He served his own generation, and has fallen asleep."

A SURGICAL HISTORY OF THE WAR OF THE REBELLION.

FORT BIDWELL, CALIFORNIA,
February 14, 1886.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

I am engaged in the preparation of a "Compendium of the Surgical History of the War of the Rebellion," designed as a hand-book for military surgeons, and desire to consider at some length "injuries of the blood-vessels," the remote effects of gunshot-wounds in general, and the "ultimate results" as regards the functional utility of the limbs treated by conservation and excision in particular. Inasmuch as many of the survivors have doubtless come under professional observation at this late date, it is hoped that the observers will render a service to military surgery and to me personally by communicating unpublished data, which will be gratefully acknowledged.

Respectfully,
GEORGE M. KOBER,
Acting Assistant-Surgeon U.S. Army.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES
OF OFFICERS SERVING IN THE MEDICAL
DEPARTMENT U.S. ARMY FROM FEBRUARY
28, 1886, TO MARCH 13, 1886.

MAJOR WILLIAM S. TREMAINE, SURGEON.—Leave of absence extended six months on surgeon's certificate of disability. S. O. 50, A. G. O., March 2, 1886.

MAJOR J. W. WILLIAMS, SURGEON.—Ordered for duty as post-surgeon, Vancouver Barracks, Washington Territory.

CAPTAIN C. E. MUNN, ASSISTANT-SURGEON.—Ordered for duty as post-surgeon, Fort Custer d'Aleme, Indian Territory.

CAPTAIN M. W. WOOD, ASSISTANT-SURGEON.—Ordered for duty as post-surgeon, Fort Walla Walla, Washington Territory.

S. O. 31, Department of the Columbia, February 20, 1886.

MAJOR HENRY McELDERRY, SURGEON.—Leave of absence extended one month. S. O. 49, A. G. O., March 1, 1886.

CAPTAIN WILLIAM G. SPENCER, ASSISTANT-SURGEON.—Ordered for duty at Fort Yates, Dakota Territory. S. O. 17, Department of Dakota, February 23, 1886.

To be Assistant-Surgeons, with the rank of Captain, after five years' service, in accordance with the act of June 23, 1874:

ASSISTANT-SURGEON WILLIAM H. ARTHUR, February 18, 1886.

ASSISTANT-SURGEON GEORGE E. BUSHNELL, February 18, 1886.

ASSISTANT-SURGEON HENRY P. BIRMINGHAM, February 18, 1886.

ASSISTANT-SURGEON MARLBOROUGH C. WYETH, February 18, 1886.

Circular, A. G. O., March 1, 1886.

R. L. ROBERTSON, FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted leave of absence for one month. (Fort Ringgold, Texas.) S. O. 29, Department of Texas, March 8, 1886.

LIST OF CHANGES IN THE MEDICAL CORPS
OF THE U.S. NAVY FROM FEBRUARY 28,
1886, TO MARCH 13, 1886.

SURGEON GEORGE W. WOODS.—Ordered to Navy-Yard, Mare Island, to relieve Surgeon W. K. Schofield, April 1, 1886.

SURGEON W. K. SCHOFIELD.—Detached from Navy-Yard Mare Island, and wait orders.